

# AMERICAN AGRICULTURIST.



*Agriculture is the most healthful, the most useful, and the most noble employment of man.—WASHINGTON.*

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## FRENCH MODE OF MAKING APPLE BUTTER.

IN France, a kind of jam, or apple butter, called *raisiné composé*, is prepared by boiling apples in unfermented wine. The must or wine should be reduced by boiling to one-half of its bulk, to be continually skimmed as fresh scum arises, and afterwards strained through a cloth or a fine sieve. The apples are then pared, cut into quarters, and put into this liquor (*raisine*) and left to simmer gently over a fire, with a continual stirring with a wooden spatula or slice, till the apple becomes thoroughly amalgamated with the liquor, and the whole forms a kind of marmalade, which is extremely agreeable to the taste.

When prepared in the northern departments of France, the *raisine*, after the first boiling, skimming, and straining, is set in a cool place for twenty-four hours, when a saline liquor, like a scum, appears on the surface. This is removed, and the liquor strained, before it is mixed with the apples, as above. This scum consists principally of tartaric acid, which would spoil the *raisine*, and prevents it from keeping sweet, but which is not perceivable when the grapes, from which the wine is made, have been ripened in a southern climate. The *raisine*, when properly prepared, is sweet, but with a slight flavor of acidity, like lemon-juice mixed with honey. The best *raisine* is made in Burgundy. In Normandy, a similar marmalade is composed of cider and pears, much resembling the "apple-butter," or "apple-sauce," of the United States; but it is not so good as the *raisini*, being apt to ferment. In some cases, the pears are put into an earthen vessel without water, and placed in a baker's oven, after the bread has been drawn, previously to mixing with water.

The best *raisine* is considered very wholesome,

particularly for children, who eat it spread on bread, and for persons in delicate health, whose stomachs will not bear butter. In Italy, the *raisine* is eaten with *gnocchi* and other preparations of Indian corn, and with maccaroni, to give a flavor to these dishes. There is nothing better to make a dinner relish, and we would always have it, or apple, or cranberry sauce, if possible.

## PRESERVATION OF APPLES.

APPLES intended to be preserved for winter and spring use, should remain upon the trees until quite ripe, which usually takes place at the coming of the first heavy frosts. They should then be plucked from the trees by hand, in a fair day, and packed up immediately in casks, in alternate layers of dry sand, plaster, chaff, saw-dust, or bran, and conveyed to a cool, dry place, as soon as possible. The sand or saw-dust may be dried in the heat of summer, or may be baked in an oven at the time required to be used. The peculiar advantages arising from packing apples in sand, are explained and commented upon as follows, by the late Mr. Webster, author of the "American Dictionary of the English Language." "1st, The sand keeps the apples from the air, which is essential to their preservation; 2d, The sand checks the evaporation or perspiration of the apples, thus preserving in them their full flavor—at the same time any moisture yielded by the apples is absorbed by the sand—so that the apples are kept dry, and all mustiness is prevented. My pippins, in May and June, are as fresh as when first picked. Even the ends of the stems look as if just separated from the twigs; 3d, The sand is equally a preservative from frost, rats, &c. But after the extreme heat of June takes place, all apples speedily lose their flavor, and become insipid."

### IMPORTATION OF PURE BRED MERINO SHEEP.

It will be recollectcd we mentioned in the Agriculturist of last year, that Mr. John A. Taintor, of Hartford, Ct., had sailed for England in the month of May, with a view of making a general tour in Europe; and that a paramount object with him during his absence, would be the inspection of the best fine-woollen flocks of France, Germany, and Spain, for the purpose of selecting some choice animals from them for an importation into the United States. We know no man in America so well qualified to make these selections as Mr. Taintor; for his father was largely interested in the early importations of the Spanish Merinos, and their subsequent breeding; and the son was with him in the same occupation from boyhood, followed up by extensive dealings in wool from that time to the present. In this way he had the best opportunity of obtaining a thorough knowledge of the animals, and the best system of rearing and breeding them, together with an intimate acquaintance with the wants of the manufacturers, and that quality and style of wool most suitable for their general purposes. Thus qualified to make selections, Mr. Taintor has spent about fifteen months in looking over the government and private flocks in the north and south of France, and among the Pyrenees; in the mountains and plains of Spain; and in Saxony, Prussia, and Austria, including Bohemia and Moravia. All this was done under peculiarly favorable circumstances, and such as are not soon likely to occur to any one again. The result is, from these flocks, he has been permitted to choose such sheep as he wanted. Four Saxon bucks and four ewes of his selection, from the Electoral and the equally celebrated Baron de Spreck's flocks, came out in the ship *Atlantic*, from Bremen, for Mr. Scoville, of Connecticut, a notice of which we gave at pages 198 and 203 of our current volume; and three Merino bucks and twenty-three ewes arrived with him in the ship *Patrick Henry*, Capt. Delano, from Liverpool, on the 1st of August last.

Although we had a good opportunity of seeing these sheep on board ship after their arrival, and again when transferred to the steamboat for Hartford, yet this was not sufficient to satisfy us; accordingly, after they had been at home about a fortnight, we went on there to examine them more particularly, and see them shorn, they having come out with their fleeces on. The rams being young, we will dismiss them by saying, that they are the most promising animals of their breed we ever saw, and when full grown, will weigh at least from 225 to 250 lbs. each. The sire of one was sold the past season for \$500. He sheared 23 lbs. of unwashed wool.

To give an idea of the ewes, we measured them after they were shorn, and found they varied from 25½ to 29 inches in height over the withers; and lest it may be thought this superior height is attained by extra long legs, we will add, that the height of the under side of their bodies from the ground, was from 9½ to 12 inches; which, according to our observation, is no greater in proportion to their size, than that of good American Merino sheep. Their weights we took after being shorn.

They varied from 124 to 153 lbs. Some of them were quite thin in flesh, the largest especially, which, if in fine condition and her fleece on, would weigh at least 200 lbs.

The following is the weight of their fleeces unwashed. We took them ourselves in the presence of several witnesses, and as fast as shorn from the ewes' backs. The scales we used did not mark less than one quarter of a pound, which will account for the absence of odd ounces.

No. 17.....13	lbs.	No. 100.....12 1-4 lbs.
" 37.....15	"	" 109.....17 "
" 64.....16 3-4 "	"	" 110.....17 "
" 71.....14 1-2 "	"	" 117.....16 3-4 "
" 84.....16 1-2 "	"	" 118.....15 3-4 "
" 87.....16 1-4 "	"	" 133.....14 3-4 "
" 94.....17	"	" 195.....13 1-2 "
<hr/> 109		<hr/> 107

The fleeces were about fourteen months old, but they had lost some on their voyage out, and on account of the lateness of the season, were not shorn near as close as it is customary; besides, on several of them, from half to one pound of the wool was left on the heads and legs, for the purpose of giving an idea of their fleeces to those who may call hereafter to look at them. Taking all these things into consideration, it was the unanimous opinion of several sheep-masters present, that the wool clipped from these ewes was not more than would have been equivalent to one year's growth.

We shall not compare the weight of these fleeces with what is generally termed *clean washed* wool, as it is the most uncertain and unsatisfactory comparison which can be made, for when it comes to be cleansed by the manufacturer, it will vary in loss from 20 to 50 per cent. just as the case may happen. It was the unbiased opinion of several wool dealers present, and our own, that the shearing above would yield at least 35 lbs. of *cleansed* wool, fitted for manufacturing without further loss, out of every 100 lbs. shorn. The fourteen ewes yielded 216 lbs. unwashed, which would be equivalent to 75 lbs. 10 oz. thoroughly cleansed, or an average of 5 lbs. 6 oz. per head. If any of our readers are desirous to know what this would come up to, *clean washed*, they may safely add one third. This would bring the average as wool growers usually dispose of their fleeces, to 7 lbs. 3 oz. per head—a yield totally unprecedented in this country. The usual average weight of good Merino ewes is about half this. The average of the flocks in Europe from which these sheep were chosen, is, for rams from 15 to 17 lbs. per head; for ewes 11 to 13 lbs., unwashed. The average price of such wool in its unwashed state, is 26 cents per lb. of our money.

These sheep show great vigor of constitution, and are remarkably well formed, with enormous dewlaps and folds all over the carcass. Their fleeces are very close, thickly covering the head and legs as well as the body, and are uncommonly even, the wool being nearly as good on the flanks as on the shoulders, while its felting properties are unsurpassed. In fineness of quality it is equal to the best American Merino. To those who have good pastures and are desirous of breeding a large, strong, hardy flock, yielding wool fine enough for

the better qualities of broadcloth, here are the animals for them.

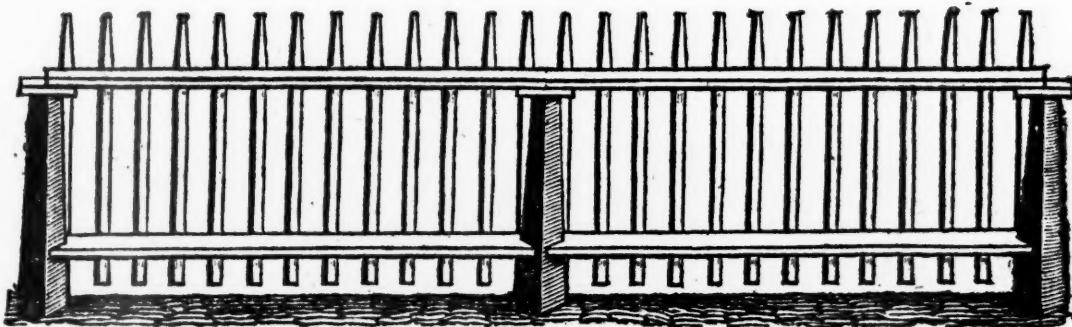
If Mr. Taintor's time and travelling expenses be taken into consideration, the cost of these sheep would be enormous. He has not been at the trouble and expense of this importation with a view of making money from it, but to please himself. He will also breed them for his own pleasure and to occupy his leisure hours with a useful hobby. Ewes from the flock will not be for sale at any price; but the ram lambs will probably be offered to those who wish to purchase, in September, 1847, and annually thereafter, at prices doubtless much below what it would cost to import them.

We consider this one of the most important importations of fine-wooled sheep ever made into the

United States, and that Mr. Taintor deserves the gratitude of his country for it. He has made arrangements in Europe for a few others of a similar superior character to follow these next season, and as often thereafter as it may be advisable to make a fresh cross, so that flock-masters may not only be satisfied as to the character of his produce, but have an opportunity also of getting a fresh cross themselves from his flock whenever necessary.

One ram and seven ewes have been placed by Mr. Taintor, in the hands of Mr. Francis Rotch, of Butternuts, Otsego County, N. Y.; another ram has been sent to Mr. L. G. Bingham, of Williston, Vt., to breed to his Rambouillet Merino flock, purchased last year of Mr. D. C. Collins, Hartford, Ct., a notice of which appeared in our last volume, page 382.

#### STEVENS' PATENT FENCE.



STEVENS' PATENT FENCE.—FIG. 63.

MR. JOSEPH STEVENS, of Northumberland, Saratoga County, New York, has recently invented a mode of constructing fences on a new plan. The posts are made of the same composition as common bricks, being burnt or baked to the consistency of a hard, arch brick. They are set in the ground diagonally, or corner-wise; a tenon is made on the top of each post, on which is placed a coupling block for the top rail to rest upon, and fastened to it by a pin or nail, which unites the whole fence firmly together; the bottom rail is notched at each end, so as to brace the posts firmly, and is supported by the paling or pickets. It will be seen that in this mode of construction, there are no tenons in the rails, thus preventing rot or decay in the wooden part.

The durability of the posts of this fence being almost imperishable, is alone sufficient to entitle it to attention; and in adding to this its beauty—being really ornamental—and, above all, its cheapness, appears to render it a useful and valuable discovery.

Perhaps there is no improvement at the present day, more needed or more called for, than that of fences; farmers in particular, who are subject to such great expense in constructing in the old manner, and a constant tax in repairing them, while the materials they now use are yearly becoming more scarce, and their expenses consequently greater, will do well to look into this matter, and avail themselves of the opportunity offered, to obtain a cheap and durable article. The inventor has ascertained by experiment that this fence can be constructed as cheaply as any ordinary kind now in use.

SHOW OF THE NEW YORK STATE AG. SOCIETY.—Let our readers bear in mind that this Show will take place at Auburn, on the 15th, 16th, and 17th, of this month. The place is easily reached by the great Western railroad, which passes directly through it. Auburn is a beautiful town, in the heart of a highly fertile country, and the accommodation for visitors there we understand is most ample. The show will be a grand farmers' festival, and we hope to see a large number of them present, with their families. They will find much to admire there, and something we trust to instruct them. We have no doubt it will be one of the best, in many respects, that the Society has yet held. Much interest is manifested in it, and extensive preparations are on foot to render it all it should be.

SYMPOTMS OF DISEASE IN ANIMALS.—A full and frequent pulse, loss of appetite, dejected head, and a languid or watery eye, with a disposition to lie down in a dark or shady place, are certain marks, in all brute animals, of one of the most frequent diseases with which they are affected—that is, the fever. The watery eye, an inability to bark, or barking with a stertorous hoarseness, indicate the approach of madness in the dog. The elevation of the hair on the back of a cat, and its not falling upon its feet, when thrown from a moderate height, are the premonitory signs of that disease, which has long proved fatal to that species of animal both in Europe and America. The tail of a horse losing its regularity of motion from side to side, indicates that he is indisposed, and the part in which his disease is seated is pointed out by one of his ears inclining backwards to the side affected. The seat

of disease in the abdomen, where the signs are concealed, may be known by pressing the hand upon his whole belly. When the diseased part is pressed, he will manifest marks of pain.

#### NEW YORK FARMERS' CLUB.

AT a late meeting of this club, Mr. Turell presented the following humorous report in the Portsmouth Journal of the New Hampshire Legislature on the

*Bounty on Crows.*—Mr. Clark said as the gentleman from Alstead (Mr. Vilas) and the gentleman from New Ipswich (Mr. Preston) were in their seats, he moved that the report of the Committee on Agriculture and Manufactures, in relation to killing crows and giving bounty thereon, be taken up, which motion prevailed.

The resolution declared that it was inexpedient to legislate upon the subject.

The bill, which had been referred to the committee, was read.

Mr. Preston said he was much obliged for the courtesy of his friend from Manchester in giving him an opportunity to speak on this subject. He should, in the common parlance of the day, ‘tender his services,’ not to the Governor, but in defence of his poor colored friend, the crow. It had been said that the crow did great injury to the corn field of the farmer. He (Mr. P.) did not believe it, and he did not believe that the farmers of the State demanded any such law, certainly the true interests of the farmer did not in his opinion demand it. A study of the habits and food of the crow would convince any one that the crows were not the disciples of Dr. Graham, but quite the contrary. Their food was mostly made up of worms and insects, which would do ten times the injury that was ever experienced from the crow, were it not that the crow, by destroying them, prevented injury to corn crops and to all kind of crops.

The crow did not meddle with vegetable substances or with corn, until he had made a thorough search for worms, and made a return of ‘*non est inventus*,’ and that his appetite was in ‘*no part satisfied*’ [laughter]—then, and not till then, did the crow commence depredations upon the farmer’s field.

He (Mr. P.) said he believed that if the farmer made proper exertions, he could keep the crows away—the farmer could provide proper ways for frightening them away. Farmers were not generally aware of the immense benefit derived from the labors of the crow. For one, he professed to be a farmer, and had for a long time cultivated a considerable amount of land, and he had yet to learn that crows did more injury than benefit to the farmers’ crops. He would relate one instance.

He had a piece of corn between two pieces of woods, in one of which, if anything can be judged by the noise, there was a family of crows. The crows constantly passed over his field of corn, day after day, and hour after hour, without touching a hill, and passed down into a meadow at some distance. He had the curiosity to examine the spot where the crows visited, and he found that the grass was dry and withered in many places, caused by the ravages of the worms under the turf. Here the

crows had been protecting the farmer, by destroying the worms which they found there. From that spot the crows had furnished their young with food, and as long as worms could be found did not touch the corn. Farmers did not fully appreciate such efforts of the crow, and the good effects resulting therefrom. There might be some particular instances when injury was done, but all considered the crow of incalculable benefit to the farmer.

Cases were so rare where crows did injury, that he should enter the plea for them in such cases, which was offered by a distinguished lawyer of a neighboring State, that of *somnambulism*, and if this was not entertained, he should consider this whole proceeding as illegal, it being an attack upon an office held by law, for Shakspeare’s *reports* have it that crows are the “executors of dead horses.” [Laughter.]

He afterwards called the crow the “*administrator de bonis non*,” which he translated as *administrator on bones*, and appealed to his learned friend, the Chairman of the Committee on Education, for the correctness of his translation. [Laughter.] He gave as another reason against the bill, that as crows were not the intruders upon this soil, but the real aborigines and joint occupants of the soil, they should not be driven off until a year’s notice. [Laughter.]

Further, they were native Americans, and he was opposed to a law cutting off the heads of natives.

He would further submit whether it would not be better to refer this matter to the Committee of Incorporations, and let them weave around the crows all the restrictive features of laws which have been passed for a few years in this State, and see if they would not conclude that it was a good State to emigrate from. [Laughter.]

Mr. Peabody said he should go against the bill—if such a bill as this passed he should go for one to destroy the mosquito, for the mosquito was the more injurious bird [laughter], certainly more sanguinary.

Mr. Parker, of Fitzwilliam, did not like the features of the proposed bill. It imposed upon the select-men the duty of cutting off the crow’s head. He happened to be one of the select-men of the town he represented, and he objected to setting a guillotine in front of his door for the purpose of taking off crows’ heads. [Laughter.] If the bill passed he hoped that it would be amended so that the one that brought the crows would cut off their heads.

Mr. Vilas differed with the gentleman from New Ipswich, in relation to the beneficial results of the labors of crows. Perhaps there may be some way to keep off the crows, but it required that the means should be more scientifically understood, than was generally the case at this time, among farmers. Perhaps the gentleman from New Ipswich (Mr. Preston), being half lawyer and half farmer, might weave a net of such a kind that the crow would be glad to keep clear from it.

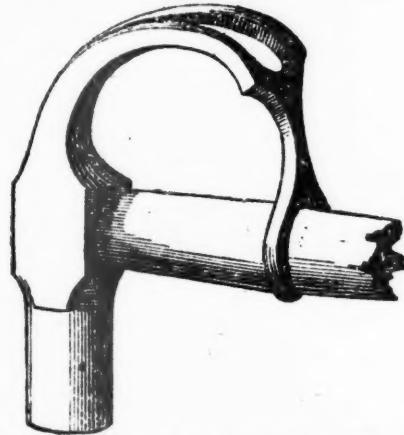
Mr. Preston replied to some remarks of Mr. Vilas, after which the question was taken on the adoption of the resolution declaring it inexpedient to legislate upon the subject, and it was decided in the negative. [A just conclusion—we vote for the crows.]

### APPLICATION OF GYPSUM OR PLASTER OF PARIS.

GROUND plaster, applied as a fertilizer, is so well known, and its properties and uses so well established, that it is presumed that most intelligent farmers are perfectly acquainted with everything concerning it. It is extensively used, and is very advantageous to clover, beans, peas, turnips, cabbages, &c.; but it does not appear to answer so well on natural meadows, for grain crops, nor on wet, or very poor lands, containing but little vegetable matter, nor is it thought to be of much use in places approximate to the sea. It is extensively used in composts in barn-yards and stables, and in neutralizing decayed or putrescent substances, in vaults, urine tanks, &c.; and is advantageously employed with green manures, and as a top-dressing of rotted dung or compost, to which it gives remarkable activity.

The quantity of gypsum used per acre varies from half a bushel to five bushels, depending upon the quantum of substances in the ground on which the component parts of the gypsum operate, or are by them operated upon. In proportion as these are scarce or abundant, the effects are produced in a greater or less degree. And when they are exhausted, or where they do not exist, no quantity whatever will produce any agricultural benefit. If a greater quantity be used, than is required to exhaust the subjects of its operation, the excess will remain inert and inactive until new subjects call forth its powers. Still the gypsum remaining in the soil, on a renewed application of dung, animal, or vegetable matter, will operate, but less powerfully, although it may have remained in the ground for years. Therefore, small quantities, by frequent applications, are much the best, notwithstanding the excess, if applied too profusely, or beyond what the substances in the earth require, will remain in its original state of composition.

### ANDERSON'S PATENT HAMMER.



ANDERSON'S PATENT HAMMER.—FIG. 63.

THIS is a recent invention; the claw, as will be seen by the cut, extending to the handle, and clasping it with a strong ring, which makes it impossible, in drawing nails, for the handle to give way, draw out, or become loose. The face of the patent hammer will thus always remain true, it being kept at the same angle with the hammer. We consider this a very great improvement, and we think it will

supersede all others now in use. These hammers are made of cast steel of the best kind, and in a very superior manner. Further description seems unnecessary, as the cut shows all. Six different sizes are now made, weighing from half a pound to one and a half pounds. The price varies according to size, from 75 cents to \$1 each.

### PREPARATION OF TOMATOS.

WE condense the following modes of cooking and preserving the tomato from the Ohio Cultivator, which appear to us to be worthy of the attention of housewives and cooks.

*To make Tomato Omelet.*—Take a stew-pan and melt a piece of butter the size of a nutmeg. Mince up an onion very fine, and fry it until quite brown. Add ten peeled tomatos, season with pepper and salt, and stir them until cooked to a soft pulp. Then stir in four beaten eggs, until the underside of the mass becomes brown. Lay a plate on top, turn the pan upside down, and the dish is ready for the table.

*Tomato Marmalade.*—Gather full-grown tomatos while quite green. Take out the stems and stew them until soft, then rub them through a sieve, put the pulp over the fire, season highly with pepper, salt, and powdered cloves, and let it stew until quite thick. The article will keep well, and is excellent for seasoning gravies.

*French Mode of Cooking Tomatos.*—Cut ten or a dozen tomatos into quarters, and put them into a sauce-pan with four sliced onions, a little parsley, thyme, one clove, and a quarter of a pound of butter. Set the pan over the fire, stir the mixture occasionally for three-fourths of an hour, and then strain it through a coarse sieve or colander. It may be served with mutton-chops or a beef-steak.

**DANDELION COFFEE.**—Dr. Harrison, of Edinburgh, prefers dandelion coffee to that of Mecca; and many persons all over the Continent prefer a mixture of succory and coffee to coffee alone. Dig up the roots of dandelion, wash them well, but do not scrape them, dry them, cut them into the size of peas, and then roast them in an earthen pot, or coffee roaster of any kind. The great secret of good coffee, is, to have it fresh burnt and fresh ground.—*Cottage Gardening.*

**How to BOIL GREEN CORN.**—The proper state in which to eat green corn, is, at the time that the milk flows upon pressing the kernels with the thumb nail. It is best when boiled in the ear with the husks on, the latter of which should be stripped off when brought to the table. The ears should then be covered with butter, with a little salt added, and the grains eaten off the cob. Over-refined people think this vulgar, and shave them off, but in so doing they lose much of their sweetness.

**BEST TIME TO PRUNE PEACH TREES.**—The most suitable time for pruning the peach, as well as for most other kinds of stone-fruit, is in autumn, just as the leaves begin to fall, when the sap is in a downward motion. At this period, a more perfect cicatrization takes place, than when the trees are pruned in winter or spring.

## THE ALPACA.—No. 4.

*Reproduction, Propagation, &c.*—The alpaca, in the mountains of Peru, brings forth her young at the age of three years; but in Europe, when highly fed, the age of reproduction is at least a year earlier. On the Andes, as well as in Ireland, she usually receives the male in October or November, and brings forth one at a birth, in the month of April or May. It is remarkable, however, that she should be covered by the male immediately after giving birth to her young, a fact which has been fully corroborated by Thomas Stevenson, Esq., of Oban, in Argyleshire, Scotland, and by Mr. Robert Bell, of Villa House, near Listowel, in the county of Kerry, in Ireland, both of whom are practical and observant farmers, and have successfully raised the alpaca for a number of years. “The female,” says Mr. Stevenson, in a letter bearing date of April 10th, 1843, “was invariably covered by the male two or three days after she had a lamb; and, from the singularity of this circumstance, it attracted my very particular attention, and I regularly marked down the date on which the female was covered, and found that she went with lamb a very few days less than a year.” In a communication by Mr. Bell, of March 18th, the same year, he says, “I find they usually copulate here in the month of October or November, although the female takes the ram invariably after having brought forth her young, which is generally in the month of May or June. At the age of nine months (?) the produce of the feminine gender will begin to breed, at which time their wool will be found to be six inches long, and their height to the shoulder thirty-four, to the top of the head, fifty-one inches.”

The llama and alpaca, as well as the alpaca and vicuña, can be induced to breed together, and of the former union there are frequent examples to be met with in Europe as well as in Peru. From this alliance a beautiful hybrid results, if possible, finer to the eye than either parent, and also more easily trained to work, but like the mule, it does not procreate,—a fact which has been confirmed by General O’Brien, an observant Irish gentleman, who resided twenty years in Peru, and was actively employed under San Martin, the Liberator, in the War of Independence—a great traveller on the Andes, and besides a landed proprietor and miner in the district of Puno. Subjoined is an extract from a communication by him, dated at Liverpool, June 6th, 1841:—

“ You ask me whether the alpaca is still used in Peru as a beast of burden. I answer that it is, but not generally, and only by the poorer class of Indians, who do not own many llamas. There is, however, a beautiful animal produced between the llama and alpaca, much handsomer in form and figure than either, and also better adapted for work, but it does not breed. \* \* \* \* In Peru we call them *machurgas*, and these are the animals I principally used at my mines to bring down the ores from the mountains.

“ From the sterility of this hybridous race, it would follow that the alpaca is a distinct variety of the llama tribe, differing as much from its allied species, as the horse does from the ass; and, con-

sequently, that the two domestic animals of the Peruvians were not brought to their present state by means of crossing. Their intermixture is a modern expedient by the Spaniards. It is a rule of the vital economy, that life only springs from life, and every being is consequently endowed with the property of generating an offspring, inheriting a nature similar to its own. When the species vary, this rule ceases to act; whence, although possessing a strong physiological resemblance in many important points of their organization, there must necessarily be some material difference between the llama and alpaca in the functions of generation, which it is more than presumable equally extends to the wild species, and that difference produces an irregularity at variance with the laws of nature, constituting an essential condition of life.”

It appears from the report of M. Bory de Saint Vincent, a distinguished naturalist, who accompanied the French army into Spain, under Marshal Soult, that he observed in the Zoological Garden of Don Francisco de Theran, at San Lucar de Barameda, in Andalusia, a female llama pregnant by an alpaca, and also three *alpa-vigonias* (the cross between the vicuña and alpaca), the fleeces of which were much longer, and six times heavier than those of any other variety. The Spaniards were proud of this acquisition, thinking that they had thereby obtained a new race of wool-bearing animals, calculated to people their hills, and repair the loss sustained through the decline in their Merino flocks. By the experiment of crossing, however, they defeated the very object which they had in view, as the animals gradually died off without leaving any offspring, and in the course of a few years there was scarcely one individual to be found in the kingdom.

There are two facts, however, concerning the procreation of the Andes sheep, which ought not to be concealed—one, a difficulty of copulation arising from natural causes, and the other an almost uncontrollable and jealous disposition of the males at this season. The difficulty of copulation, and the manner in which it is overcome by the Indians, were first noticed by Hernandez, and it is said that nothing can be more accurate than his remarks, as exemplified in the practice of the present day. Without the assistance of man, sexual intercourse certainly can and does take place, as seen in the wild races, the structural formation of which is the same; but in the tame ones it invariably gives rise to confusion. In Peru, the rutting season commences at the close of October, when the animals become restless and lascivious, and, according to Dr. Unanue, the estimable writer on the climate of Lima, in 1806, “ all nature seems to be in motion; vegetation assumes a new form; earthquakes and volcanic eruptions frequently occur, and the air is filled with an electric fluid. Every production then glows with fresh fire, and by an active stimulus animals are impelled to the propagation and consequent preservation of their own kinds.” At this period the working llama has a respite; for it is regarded as unsafe to put a burden upon his back, and indeed dangerous to thwart his wishes, or control his actions. Both the tame and wild breeds, it is said, sometimes fight outrageously for their

mates, and instances occur of the combat proving fatal to one or both.

By a letter from General O'Brien to Mr. William Walton, who received a gold medal in 1842, from the Highland and Agricultural Society, for a "Satisfactory Account founded on Actual Observation and Experiment, to naturalize in Scotland, the Alpaca," we learn that "In Peru, the rutting season commences in the month of November, when the male alpaca throws off his tame and quiet habits, pursuing the females until he separates from the flock one of his own choice. Her he woos with the most ardent demonstrations; and if she proves coy and runs away, he follows her through the country for miles, and until his importunities have been successful. At this moment, the flocks of both alpacas and llamas sometimes break up and disperse, running in different directions through the country, and weeks may elapse before the owner is able to collect them again. Hence, when this season approaches, the Indian shuts up his sheep, separating the male from the female, in pens, purposely constructed in such a manner as to allow of their putting their faces together, and caressing each other a week or a fortnight before the day appointed to bring them out."

Owing to the extremely lascivious disposition, however, of the Andes sheep, great care must be observed when the males are admitted to the females. Both by night and by day the shepherd should be vigilant; for besides quarrelling with one another, where two males are allowed to compete for the same female, they might trample her to death. Hence every possible precaution ought to be used to keep them apart. Upon this point General O'Brien remarks, that should the alpaca ever be introduced into Great Britain, on a large scale, and as a national benefit, breeders must adopt the Peruvian mode of separating the males from the females, at least a fortnight before the union of the sexes takes place, and in order to prevent their wandering away.

"In some parts of Peru," Mr. Walton observes, "the *llameros* prepare small folds, in which they shut up one of each sex. The male begins his caresses by antic tricks and boundings; the female, at first, appears shy, and moans, while at intervals one spits at the other. After a day or two they become more intimate, when at length the female, with her fore-legs bent under her, and resting on her breast, assumes that position in which only she can receive the embraces of her mate; but this is not a forced prostration on her part. It is, on the contrary, the easy and natural posture which she takes when reposing. If she evinces anything like caprice, and difficulties should arise from her repugnance to assume the position required, the keepers place a slip-noose, called *pajal*, on the lower part of the fore-legs, when pulling from behind, they trip her up, and alighting on her breast, with their assistance, she easily receives the act of generation. The state of excitement into which the male has been worked up, is at this moment so great, that he is immediately afterwards turned out separate, and left to repose, never being 'coupled twice in the same day. One, however, suffices for twenty females.'

#### PERUVIAN GUANO ON WHEAT AND GRASS.

On the light soils of Long Island, and generally around New York, Peruvian guano has proved, the past year, one of the best and cheapest manures which can be applied to the wheat crop. We think we are safe in saying, that so far as our observation extends, an application of 300 lbs. of Peruvian guano per acre, costing \$7 to \$8, has produced an increase in the yield of the crop of wheat of from 7 to 12 bushels per acre, and the after benefit of the guano on the succeeding hay-crop, may be counted upon as equivalent to a ton and a quarter of hay extra in the three succeeding years; thus proving that a pure article of guano, judiciously applied, is a profitable fertilizer.

If the soil is not leachy or exposed to be washed by winter rains, we will recommend that guano be applied to wheat, rye, or grass, in the fall of the year, otherwise as early as March the following spring. Some sow guano and harrow it in either before or with the seed. Being so powerful a manure, and when coming directly in contact with the young roots of plants, burning and killing them, we think that this system is more or less hazardous; we would therefore recommend those using guano for winter grain, to let the plant get up about three weeks high, and then sow broad-cast upon it, at the rate of 300 lbs. of Peruvian, or 400 lbs. of African per acre. If the causticity of the guano destroys some or even many of the leaves of the plants, it is of no great importance; for by this time they will have become well rooted, and others will immediately spring up to supply their place. The great benefit of applying guano, and indeed all other manures, to grain and grass crops in the fall, is, that they remain a slight covering to the ground, assist in keeping it warm, are gradually decomposing, and by early spring become soluble and well prepared for the crop to take them up and assimilate their elements for its rapid growth. It has been ascertained in England, that a crop of grass or grain guanoed in the fall, will ripen from a week to ten days earlier than the same would under similar circumstances un-guanoed. Before purchasing guano, we advise every farmer to look about him and gather up and apply all the manure and fertilizing substances that he can find upon or around his premises. Let him remember that a penny saved is twopence earned, and that it is easier to save than to earn.

**DETERIORATION OF BARN-YARD MANURE.**—Dung, in the opinion of the late Judge Peters, begins to deteriorate after it is one year old. "I have put it on," says he, "after lying several years, without any perceptible benefit. But the practice of plowing in hot and fresh dung, has often been to me a subject of regret. It not only produces smutty crops, in parts over stimulated, but cannot be equally spread or covered, so that much straw and little grain appear in spots, which often lie down; and, in others, scarcely any advantage is derived. Muck, composted, will keep the longest, without injury to its fertilizing qualities. Dung and muck, in confined places, from which free air and moisture are excluded, undergo a degree of combustion, and become dry-rotten, mouldy, and useless."

## TO PREVENT SMUT IN WHEAT.

ALTHOUGH we have given directions how to prevent the smut in wheat in a former volume, many of our readers do not seem to have read them, and therefore we repeat them. Make a brine strong enough to bear up an egg, be careful that it is not above blood heat, then let the grain soak in it from one to twelve hours, as is most convenient. While in soak, stir up the grain occasionally, and every time this is done, take off the scum, foul stuff, and light seeds that rise to the top of the brine. As the grain is taken out, spread it on a floor or in the sun, and scatter slaked lime, ashes, or plaster, over it, to dry it. Lime is the best ma-

terial for this purpose, if to be had. It will dry in half an hour in the sun, and is then ready to be sown. Copperas water and urine are frequently used instead of brine to soak the seed; but we much prefer brine, as it is cleanly, and never dangerous in application. Some say grain may be soaked 24 hours in the brine without injury; but if it be a thin-skinned variety, we should think it would endanger its germination to soak over four hours or so. It is a good plan to prepare rye, barley, buckwheat, and oats, for sowing in the same way as wheat, especially oats, as they are frequently as liable to smut.

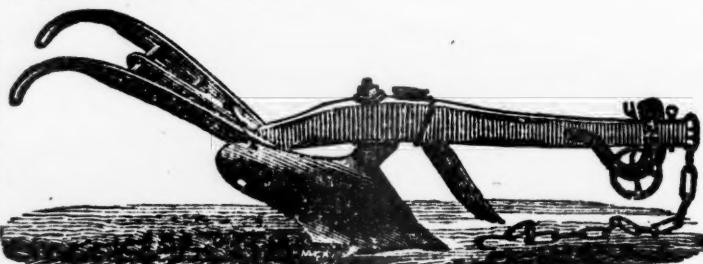
## SIDE-HILL OR SWIVEL PLOW.

THESE plows are so constructed that the mould board is easily and instantly changed from one side to the other, which enables the operator to perform the work horizontally upon side-hills, going back and forth on the same side, and turning all the furrow slices with great nicety, downward. This prevents the washing of the soil by heavy rains, to which all side-hills are more or less liable when plowed as level ground. They are much liked at the South for *horizontal* plowing; for by this system of turning up and laying the soil, it is prevented from being washed into those deep gullies, so destructive to the general face of the country. They are also highly useful, and by many much approved for level plowing, as this leaves the field without any *centre dead* or finishing furrow; nor does it make banks or ridges by turning two furrows toward each other. They are likewise useful in enabling the plowman to turn the furrow *from* his walls and fences. Another advantage, they save much trouble in enabling the team to turn short about at the end of the furrows, instead of obliging it to travel across the wide ends of each land in the field. Price \$5 to \$14.

## REPEAL OF THE BRITISH CORN LAWS.

WE had the gratification in our last, of announcing the repeal of the exorbitant and odious Custom House duties which have been so long levied upon the importation of breadstuffs into Great Britain, to the serious injury, and often heart-rending sufferings of her people. It is one of the most beneficent acts of the age, and does honor to the men who were instrumental in passing it. The people of Great Britain and Ireland have at length attained the common rights of humanity, and are now enabled to supply themselves with food where it is to be had best and cheapest. We hope henceforth to hear no more cries for bread, from half-famished thousands, when it can be had at a low price from a neighboring country.

It is not, however, as an act of beneficence wholly, that we desire to call the attention of American farmers to the repeal of the British Corn laws, but as one likely to redound to their permanent interests. We are not, and never have been so sanguine in our belief, that their repeal would raise the price of breadstuffs materially on this side of



SIDE-HILL PLOW.—FIG. 63.

the Atlantic, and if the people of the United States expect any such thing, they will find themselves greatly mistaken; a rise of prices is only to be looked for after a bad harvest in one country or the other. With our widely extended and highly fertile territory, and unprecedented increase of rural population, there is a constant tendency in reasonably favorable seasons, to produce a large surplus of provisions. Now if we were obliged to keep this surplus at home, there must inevitably be a steady fall in the prices of agricultural products, and a greater or less loss every year from the injuries to which such bulky and perishable articles are constantly liable. The ports of Great Britain being now nominally free, we shall easily get rid of our surplus produce, and thus be able to maintain fair prices. If the tillers of the soil will take this fact duly into consideration, they will see that it is likely to be a greater boon to them than fluctuating high prices. Under the former tariff, Indian corn, one of the largest productions in the United States, was virtually a prohibited article—now it can be exported in large quantities.

Notwithstanding the promising harvest in Europe the present year, it would not surprise us if the exportations of corn, wheat, beef, pork, lard, butter, and cheese, should amount to twelve or thirteen millions of dollars. This amount will be steadily on the increase, and in a few years doubtless approximate to twenty millions; while the freight and charges earned by American citizens will be five millions more—and let it be recollected that those engaged in the transportation of these products are consumers, and not producers. Hence the disastrous effects cannot be so great as apprehended by some, as many of our farmers will grow richer by the sales of their produce, our shippers and sailors will find employment, and the country will still prosper.

## FOREIGN CATTLE.

I NOTICE your remarks in the July No. of the Agriculturist, on the subject of *Foreign Cattle*, and heartily coincide with the opinions advanced. The question has often occurred to me, "Do we gain much at the present time by continuing our importation of cattle from England?" It has for some time appeared to me that we have all the materials for improving our stock to any extent, among ourselves; and that we have as fine, well-bred, and as valuable animals among our cattle, sheep, and swine, as could be found in England, with perhaps very few exceptions. It appears to me, we are getting in this respect, as well as in many others, to place too much value on a thing merely because it has been *imported*. I may be mistaken, but it seems to me the practical effect of this continued disposition to look abroad, is to lessen the prices obtained by our enterprising breeders at home, when the home-bred animals are in every respect equal, if not superior, to the commonly imported ones. Occasional importations will continue to be necessary; the fundamental laws of good breeding, and occasional infusion of blood from other races of the same family, demand this; but further than this I can scarcely conceive it necessary at present to go.

Acting upon this principle, I have always purchased my stock at home instead of sending abroad, although many of them were imported. I had the good fortune to obtain some of the Ayrshire cattle you "saw standing in the Ayrshire quarter of the State Cattle Show at Poughkeepsie," in 1844. I purchased the imported bull and cow, together with their produce, and have now in my possession one male, and five females, all thorough-bred Ayrshires, abandoning all other varieties, although I must confess I am well pleased with the cross with the Durham and Ayrshire. For the dairy, I esteem them superior to my full-bred Durhams. It was from a heifer of this cross that one pound of butter was produced from eight quarts of her milk.

The very laudable attempts which have been made to improve our farm stock by importations, and, in some instances, by judicious crossing and good keeping, cannot but prove highly beneficial to our country. Our native cattle, it is true, originally sprang from the same stock as those of Great Britain; and, with the attention to improvement that has been bestowed in England, they would, at this time, probably have been inferior to none. But from want of care in retaining the best individuals as breeders, and from an almost total disregard to purity of blood, and propriety of crossing, in our stock of neat cattle, we are unable longer to identify distinct breeds, and consequently we have been, till within the past few years, retrograding rather than improving in this branch of our business. In Great Britain, the business of rearing, or, in other words, of improving the form and value of domestic animals, has, on the contrary, formed a distinguished and lucrative branch of farming, for the last eighty or hundred years; and the success of the gentlemen engaged in this business has not only greatly increased the agricultural wealth of the nation, but procured for many large fortunes.

The Ayrshire breed of cattle are at present at-

tracting considerable notice, as the attention of breeders has been, in a peculiar degree, directed to the characters which indicate the property of producing milk. They are a tough, hardy race, well suited to light soils, and scant fare.

*Albany, July, 1846.*

C. N. BEMENT.

## SOUTHERN AGRICULTURE.

I HAVE for some time past been examining the American Agriculturist, and the interest manifested by it in the South, and the many valuable items of information it contains, induce me to become a permanent subscriber. You will therefore, if you please, forward me the numbers for the present year, from its commencement. While I am writing, perhaps it may not be amiss or irrelevant for me to make a few remarks. There is a gradual change creeping over the minds of the Southern planters in regard to the leading features of agriculture—they are more ready to catch at any improvement, and more eagerly take interest in any novelty in the profession—they do not dislike innovation. This I can readily believe is brought about by agricultural works becoming accessible to the mass, and from the interest which seems to be felt by the scientific in the analysis and synthesis of soils, the application of manure, rotation of crops, deep plowing, and in fact in all matters relating to the business. Feeling, as I do, an all-absorbing interest in the advancement of our profession, I consider it the duty of every man, to add into the common stock every item of practical information, so as to repay, in part, for the advantages he has himself gained from the experience of others. My feeble efforts have always, and shall ever be, for the benefit of farming in the South.

In respect to our worn out lands, it is almost useless for any one to waste paper and ink to write to the Southern planter, telling him to manure. It is well enough for the Northern farmers to *talk*; they can well afford to fertilize their little spots of ten or a dozen acres; but a southern plantation of five or six hundred acres in cultivation, would take all the manure in the parish, and all the force to do it justice. Our plantations are too extensive to manure thoroughly, consequently it is half done, or not done at all. Again; we have no time to haul large quantities of manure to the field; for it generally takes until January to get out all our cotton, and we have to *rush* it *then*, to get time to make repairs, before we go to plowing for our next crop. You might say, why not take part of the hands and put them to making manure, while the others are picking? Because we then would have to leave a great deal of cotton in the field, which would be a loss; and many other things would have to go undone which we should have done. Only place a Northern farmer in our places, and he would be about as bad off as we are—what with waste, depredations, the buying of all we have.

However, not to look all the time on the dark side of the picture, we will see what is the remedy which exists and has existed with us. Our lands have yielded nearly all the nutriment to exhausting crops, by the ruinous system of farming thus year after year the same crop is planted, until the land is totally worn out. I know fields now in

cotton, where the same staple has been cultivated for fifteen years consecutively. What wonder, then, that our lands are worthless! Here a judicious rotation of crops, with a proper system of manuring (gradual), cleansing the ground with the cow-pea, soiling with this and other green crops, and if possible wood earth, if it can be hauled and thrown into the drill (it would require too much to lay it broadcast); then small portions of lime, if necessary, to promote decomposition. And here let me say a word in relation to lime. Some of our northern friends recommend from 50 to 300 bushels of lime per acre. This might do among those who have the carbonate within 100 yards of their doors, and get it calcined there; but those who have to import it and have it re-shipped as we do, until a barrel of lime is worth as much as the land, would find it rather an uphill work. We have some cold clayey land to which lime would be beneficial, but not in the large quantities as recommended above.

There are many planters who could afford a few weeks hauling for one or two teams, between the 20th of December and 15th of January. To those I would most strongly advise to make their manure piles after the manner of Bommer; to clean out their stock yards, pens, stables, &c.; put the manure in a pen and add wood earth, ashes, soap suds, dirt, and all kinds of refuse and offal. This by the end of the year would become quite a pile, and thus gradually increasing without any apparent effort, will, in the following spring, greatly increase the fertility of the land. Now, by changing the water furrow and drill, every other year, or every third year, all the land will be gradually enriched. If corn or cotton is planted, I would drop peas between the rows. I think other crops may be made as profitable as cotton, and it is worth the attention of the Southern planter to experiment and publish statements. At this present writing I am trying several experiments with different manures. When arrived at maturity, if you wish it, I will take pleasure in forwarding you a statement. I am growing some Cuba tobacco after the manner of the West Indians. I derived my information from a suppressed pamphlet sent to me from Havana.

I find I am transcending my limits at present, but the subject is so full of interest to me that I must be pardoned.

JAMES S. PEACOCKE.

*Redwood, near Jackson, La., June 21, 1846.*

#### REMOVING STAINS FROM CLOTH.

NOTHING is more common than the soiling of clothes by grease, oil or fat, acids, inks, sauces and preserves, coffee, varnish, white lead, paint, &c. All of these, if taken in time, may be removed without much difficulty. As the whole subject is too lengthy for a single article, I will treat them in numbers.

1. *Stains from Oils, Fats, or Grease.*—Removed by soap, chalk, white clay, French chalk, or ox-gall. They most frequently occur on carpets and articles of dress. They give a deep shade to the ground color of the goods, and continue to spread for some time after the accident has happened. They hold fast whatever dust falls upon them. On a very dark ground the stain becomes lighter than the rest

of the surface, because the dust which rests on it is lighter. Alkalies dissolve most readily these stains, but there is great danger of injuring the more delicate colors; hence they should not be used except by the most experienced scourers.

Any good hard soap will answer to remove the stains from blacks, blues, browns, drab, invisible green, &c., by means of hot water, and the soap and water may be removed by a sponge, rubbing the nap in the right direction. In any delicate colors, if soap be used, we should always first try a piece of the same kind of goods with the agent before using it on the article to be cleaned.

In all cases, where several colors are involved in the stain, as in carpets, it is preferable to use the white clay or French chalk. The latter is better, on account of being easier to remove, although either will answer the purpose, and in the absence of both, common chalk will do as a substitute. The mineral should be reduced to a fine powder, and made into a thin paste with water, and spread over the stain, and when dry removed by whipping with a rattan, and using a brush. The oil having greater affinity for the chalk than for the goods, is thus taken up and removed. If the stain be not entirely removed by the first trial, the process should be repeated.

It may happen that none of the above materials can be obtained on the farm or plantation, at the time when an accident happens, but ox-gall could always be had in such an emergency, and is both safe to use and certain in its efficacy to remove the stains. It requires some preparation, and should be kept on hand for that purpose. It dissolves all fatty or oily bodies, and has a tendency to make the colors brighter rather than more dim.

*Preparation.*—Pour the gall of recently killed oxen into a jar or basin, and after settling 12 hours, pour off the clear liquid into a shallow basin of copper or earthenware such as would float on a like basin partly filled with water. Now apply the heat of a charcoal fire to the latter, and by means of this water-bath evaporate the gall to the consistence of molasses, or thin paste. Now remove it from the basin, and spread it out on a shallow plate before the fire, and there let it dry, until it becomes quite solid, not horn-like, but only so as to be yet somewhat flexible in the fingers. Put it by in earthen jars loosely covered, for future use. When it is required, dissolve a small portion, enough when dissolved to cover well the stain, in 12 to 15 times its bulk of hot water; spread it on the goods, and when it has remained long enough to perfectly saturate them, add a little more, enough to make the stain thoroughly wet; remove it, by rubbing with a sponge, until the stain is removed.

It must be remembered that a recent stain is removed very easily, while one of long standing requires more effort to remove. I will next point out the method of removing stains of acids, ink, and iron rust.

G.  
*New York, July, 1846.*

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CURE FOR THE YELLOWS IN PEACH TREES.—On the first symptoms of the disease, grub up the trees, and commit them to the flames.

## MANAGEMENT OF HONEY-BEES.—No. 3.

THE bottom being hung three-eighths of an inch from the body of the hive, affords ingress and egress from all sides, which contributes greatly to the success of the bees, for the reason, that they are enabled to perform much more labor than when restricted to a single opening in front, on the ordinary plan. When they are confined to an entrance of a few inches, the clusters of idle bees that almost constantly, in the heat of summer, hang about the entrance of every strong stock, prevents, in a great measure, the entrance of the workers, or, at least, retards their operations, and after having gained admission, they are then compelled to force their way through a solid mass of bees, to such parts of the hive as they wish to attain; whereas, if admission is afforded on all sides, they can enter on such side as they wish to deposit their honey, pollen, or farina, whatever it may be, with no obstruction, and depart in the same easy manner. I look upon this system of arranging the bottom board as the most important branch of the management of bees, and of sufficient importance to justify me in dwelling upon it. Indeed, I am fully satisfied that no system can ever fully succeed *permanently*, on any other plan. It appeals so forcibly to our reason, as a mere matter of ingress and egress, that we cannot but admit its necessity; yet, as a means of *ventilation*, it is of no less consequence. That bees require the healthful influences of fresh air, in the greatest possible degree, does not admit of a doubt in my mind, yet it must come from the bottom of the hive; and to stop up every avenue for the admission of air to hives, except a small aperture in front, and then place them on the south side of some close fence or building, exposed to the burning rays of the sun, I consider downright cruelty, yet this is the practice of many people.

The subject of ventilation of hives has long occupied the attention of bee-masters, the different modes of which are too tedious to mention; suffice it to say, that in my opinion, no air should be admitted at any place except at the bottom. Let us look into the philosophy of this. Bees, while in the embryo state, require a heat of at least *seventy* degrees, in order to arrive at maturity. This heat is artificially produced by the bees when the temperature is lower without the hive; now, if a ventilator is placed at the top, or side of a hive, near the top, the only effect must be to operate to the detriment of the larva in its natural state of development, by causing a current of air to flow among the brood combs, rendering the natural heat of the hive, in certain parts, below what is requisite to bring the young broods to maturity. This, as I view it, is placing a strong barrier to the natural and successful operations of the bees, as nature intended them to be, in the matter of the re-production of their species. Again, if we examine the operations of the bees, we find them carefully cementing every crack and corner of their domicil above, and if any small aperture is made, though the rains cannot possibly penetrate in any situation, yet they close such openings with great care, when not too large, which, to my mind, is conclusive evidence that it is not necessary that they should

have any ventilation above the bottom of the hive, presuming that the bees would never take the pains to so closely cement the upper structure of their hives, if it were necessary that they should have ventilation in that quarter. Now, a few more words regarding ventilation *below*. I have found that the more the fresh air is infused among the bees at the bottom of the hive, both in summer and in winter, the healthier are the bees—the greater their increase—the fewer die, and when spring opens, my hives are full, strong, vigorous, and healthy; in fact, I am astonished at their appearance, being but a very few bees less in March than there were in November preceding. These facts taken into consideration, satisfy me that my plan of hanging the bottom-board is absolutely necessary to perfect success. I do not say that it is solely my plan. I believe it was first practised in the Eastern States.

Having settled the matter of size of hives, &c., the next point is the bee-house or bee-stand. Bee-houses I condemn *in toto*. If I had a dozen prosperous hives of bees, and wished to get rid of them in the course of a year or two, I could not more effectually do it, than by housing them up exposed to a hot sun, and the cool air excluded from the back and ends. The winter season would do the job for them, if placed in some very warm nook or corner, where the rays of a mid-day winter sun would raise the thermometer to about 50 or 60°, when in the open fields it would stand, say at 30 or 40°. This is the way many people do. They think if they but place their bees in some nice warm place in winter, where the bleak westerly winds cannot reach them, they are safe enough. This is the very best way to *destroy* bees that I know of, except the brimstone method. All you have to do is to let them stand, and almost every clear still day, when the thermometer in the open fields would stand at about 35 or 40, hundreds will be allured forth, by the false temperature immediately around them, never to return. But the best sport of all is immediately after a heavy fall of snow, when the sun shines clear and warm, just around the hives. It is a most capital trap for them. The silly bees take it for granted that there is no difference in the surrounding warmth, and they come out by thousands—fly a few rods—give a wheel or two, and drop down on the snow. It is a beautiful sight to see one's bees all lie dead upon the snow, or it would not be practised, to so great an extent! Some people who dislike seeing them killed off that way, prefer closing the entrances, and causing their death by partial suffocation, or artificial heat produced in the hive by the rays of the sun, without any opposing coolness from the rear, to counteract it. In this way most of the bees may be taken out dead about the first of March. For my part, I am not partial to this amusing way of killing bees; I like to have my hives as full in February and March, as in the fall previous, so I follow a different plan. I hang them up in the open air in the following way. I select a place as near my house as convenient, in which there can be no deception as regards the general temperature of the atmosphere. I do not shun a northerly or westerly exposure in the least, nor do I want any board fence, shed, or any

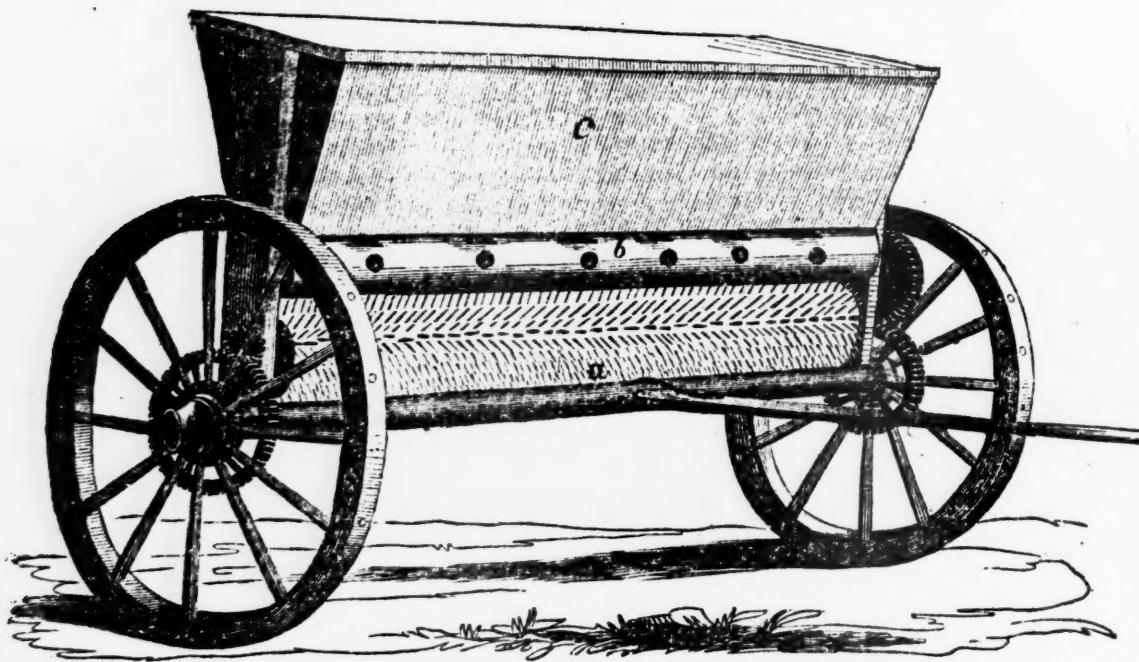
other building, to be within some rods, if possible. I then take chestnut, or southern pine joists, twelve feet long, and cut them in two in the middle, giving six feet to each. Two pieces, of six feet in length, form the supports of two hives. I sink them eighteen inches in the earth, at such a distance from each other, that when a strip of board is nailed horizontally to the inner side of each joist, on a level with the top, a hive with a strip of deal one inch square nailed to two sides, where the division-board is placed, say one foot from the bottom, will fit in between the joists, and rests upon the upper edges of the boards, as before named, nailed to the sides of the joists. The pieces attached to the joists should be at least 28 inches long, in order to leave 12 inches projection on either side. They

may be from six inches to one foot wide in the centre, and run to a point at each end. It will be perceived, that a hive can be hung on each end, which will bring them three feet six inches from the ground. They should never be nearer the ground than one yard, as the vapors arising from the earth after rains in warm weather, are very injurious. The strips of deal should be placed on the front and back sides of the hives, in order to have them both front the same way. I thus continue till I have hung all my hives, taking care to leave about 15 inches space between the hives of different stands, so as to allow of their being removed at pleasure.

T. B. MINER

Ravenswood, L. I., August 1st, 1846.

#### SEED-SOWING AND PLASTER-SPREADING MACHINE.



SEED-SOWING AND PLASTER-SPREADING MACHINE.—FIG. 65.

THIS machine is mounted on two wheels, the axle-tree of which carries two standards, supporting a long hopper, marked *c*, in the above figure. One wheel carries a gear-wheel, which works into another gear-wheel, inserted on a shaft set in the standards, and connected with a long cylinder, *b*, directly below the hopper, *c*. This cylinder has a number of cups formed by holes bored about  $1\frac{1}{2}$  inches deep, which depth is regulated by large-headed brass screws, with heads about the size of the calibre or bore of the cups. In the bottom of the hopper is a board made to fit close to the upper part of the cylinder, *b*, with holes in it, which are so arranged as to come directly over the cups. Each of these holes has a small sheet-iron slide to shut off the supply of seeds from the cylinder, *b*. The other carriage-wheel carries another wheel geared into a small pinion fixed to the cylinder, *a*, which is also set on the standards on the axle-tree, and is armed with numerous pegs or pins. The size of these several gear-wheels is so adjusted that the lowermost cylinder moves six times faster than the upper.

The operation of the parts is as follows:—The

machine is first drawn to the place where it is to be used, by horses, and the hopper filled with seeds. The small sheet-iron slides are then withdrawn, and the whole set in motion. The seeds, in descending through the holes in the board above described, fall into the cups or holes in the cylinder, *b*, and, after being carried partly round, drop on the cylinder, *a*, which moves at a greater velocity than the cylinder, *b*, and by means of the small pins become scattered after the manner of sowing broad-cast.

For spreading lime, plaster, guano, &c., the board in the bottom of the hopper is to be taken out, and the iron slide on the back of the hopper is to be so adjusted, vertically, by means of the screws, as to allow a sufficient quantity of plaster to escape from the hopper to the cylinders below, and be scattered after the manner of the seeds. The machine may be followed by a harrow, roller, or any other implement used for covering seeds with earth, or for raking in lime, plaster, or guano.

Price of six feet cylinders, \$60. Ditto nine feet cylinders, \$70.

W. M. JONES AND H. C. SMITH.

## REMEDY FOR COLIC IN HORSES.

ONE of your subscribers having been so unfortunate as to lose several of his mules by the colic, desires, through your useful publication, to obtain some information on the subject. I will inform him of my treatment in such cases, which has always proved successful. As soon as the animal is attacked, prepare a strong decoction of soot tea, to which add half a pint of whisky; pour down the throat with bottle or horn; and if relief is not obtained in a few minutes, give an injection of soap suds, with a gill of strong decoction of tobacco, and a little salt added—and if this does not give relief, and an operation is not produced from the bowels, repeat the injection.

My general practice is, to have placed in the cutting and feed-house, a small box of lime, one of ashes, and one of salt, or a barrel of salt and water, which is much better; the oats and fodder are always passed through the straw-cutter, and before fed to the animal a small quantity of the pickle is poured on, with the addition of a large spoonful of the ashes and lime. This is added once or twice a week during the spring and fall. As soon as I can procure a mill for grinding the cob and corn, I shall apply the mixture to that feed which is more preferable. I have pursued this course for the last six or eight years, with success, and can recommend it to my brother farmers as practical, and not theoretical, as book-farming and knowledge are so often asserted to be by prejudiced and anti-improving farmers.

Washington, N. C., June, 1846. J. B. M.

## NEW VARIETIES OF POTATOES FROM SEEDS.

IN autumn, soon after the appearance of the first heavy frosts, let the potato balls or apples be gathered, macerated in water, the seeds separated from the pulp, and placed in some convenient place in the shade, to dry; after which they may be packed up in an air-tight box or bottle, and kept until required for use. As few of the early sorts produce blossoms, in order to produce seeds from them, deprive the plant of its tubers as they appear, and keep the runners from which they proceed above ground, by not earthing up the plant, and blossoms and seeds will soon appear. About the first of March, let them be sown in a hot-bed, in lines six inches apart, a quarter of an inch deep, and very thin. When water is necessary, sprinkle it between the lines, but avoid wetting the plants, as that would injure them, taking care to give them a little fresh air before they are watered. As the plants increase in size, rich earth carefully put between the lines will add fresh vigor to them; but the tops of the plants must not be covered by the mouldings, which should occasionally be repeated until they are fit for transplanting. To prepare them for this, about the first of May, they must be plentifully refreshed with air; and, two hours before removing them, they must be copiously watered *all over*, and the glasses covered with mats, to prevent the sun, if shining at the time, from scorching the plants. Let each plant be taken up carefully, with a ball of earth attached to it, and plant them in trenches, after the manner of cultivating celery, only with this difference, the distance

from plant to plant, in the lines, must be eighteen inches; and if the sun should be shining out strong at the time of planting, a flower-pot or any other convenient article may be placed over each, to prevent flagging; for, with all care exercised in taking them up, a good many of the fibres will be broken. After the plants have established themselves, remove the pot, and earth up occasionally, as long as the space between them will admit of it. The best manure employed in the operation is a mixture of fine turf and rotten horse-dung.

In plants produced from the seeds of the same ball, no two stems will, in all respects, possess the same qualities; yet, many of the tubers will have so near a resemblance to each other, that, when they are mixed together, they cannot be distinguished by the eye, though it may happen that one variety will be four times as prolific as the other, or may be much better in other respects. The tubers raised from the seeds of the same ball, are also prodigiously diversified in regard to *color*, being black, red, white, green, yellow, pink, &c.; to *shape*, as round, knobbed, and varied in all proportions; to *size*, some of them being no larger the first year than peas, while others exceed the size of a pullet's egg; to *earliness*, some of them completing their growth in July, while others will not put forth their blossoms before October; to *productiveness*, some yielding more than two hundred, while others will give only three or four; to *spreading under ground*, some running out to a great distance, others growing quite near to the stem, some descending deep into the earth, while others will rise to the surface; to *quality*, some being tough and watery, some dry and mealy, some very pleasing to the taste, and others will not be palatable at all; and as to *stems*, some will carry a single stalk, like a rod, others an immense profusion of them, some being very luxuriant, while others will be extremely dwarfish. In short, what is very remarkable, no sort of connection will be found to exist between any two peculiarities. Few plants which may resemble each other above ground, will often be found extremely dissimilar below the surface; while two tubers that apparently resemble each other, will sometimes be so different in quality, when tried for eating, that one will perhaps be among the best, and the other among the worst of the parcel. Hence the benefit that may be derived by a cautious selection from seedlings is obvious, as well as the evil consequences that may accompany a careless procedure in this respect. B.

SUPERIOR CORN BREAD.—In stopping at Bement's American Hotel in Albany, a few weeks since, I do not know when I relished any food better than I did some excellent corn bread, which I found on his breakfast table. I was so well pleased with the article, as well as with the general character of his house, that I begged of him to furnish me with a recipe for making it, which is as follows:—

Take 3 quarts of milk, a little sour, 7 eggs, 2 ounces of butter, 1 teaspoonful of saleratus, and mix with Indian meal, to the consistency of a thick batter, and bake with a strong heat. The pans used for baking are of tin, 8 inches in diameter,  $1\frac{1}{2}$  inches deep, and a little bevelled. The above is sufficient for seven loaves. A TRAVELLER.

**FRENCH BREAD.**

THE bakers in France commence their operations at five o'clock in the morning, by mixing 5 pints of water, and 3 lbs. of leaven, reserved from the last baking, and as much flour as will make a paste, weighing 17 lbs. Ten hours afterwards they add 10 or 11 pints more water, sufficient flour to make a paste of 40 lbs. weight; two hours afterwards 24 pints more water, and flour enough to make a paste of the weight of 120 lbs. From this paste they cut off a portion of three pounds in weight, to serve for the leaven of the next day's baking. Then, four hours afterwards, they make a new addition of 100 lbs. of flour, and from 70 to 80 pints of water, and which will yield a mass of about 300 lbs. weight. They then begin to beat the paste, and when it is well kneaded, they separate about 80 lbs. of it, which is to serve as the leaven for the next baking. This paste is so fluid, that the loaves cannot preserve their form before they have been exposed to the heat of the oven. For the second baking, after having mixed the quantity of flour necessary, by kneading it, they add the paste reserved from the former baking, and when the mass is finished, they cut off a part weighing 80 lbs., and thus they proceed a third time, a fourth, and so on, until they have made twelve bakings. They thus continue to work for several days together, only they modify it after every fourth baking, by adding what they term a young leaven to the paste which each baking had impaired or weakened. If they would introduce into the paste either salt or yeast, they thin it in a proper manner with water, which contains yeast or salt in solution. They also use yeast for the soft bread. A quarter of a pound of the yeast from beer is equal to 8 lbs. of the paste leaven, so that 4 ounces of yeast are equivalent to 20 lbs. of the paste. The paste in which they have mixed the yeast, must not, however, be mixed with that containing leaven.

*—From the French.*

**SUCCOTASH IN WINTER.**—Take, when green, your corn either on the cob or carefully shelled, and your beans in the pod, dip them in boiling water, and carefully dry them in the shade where there is a free circulation of air. Pack them up in a box or bag, in which they should be kept in a dry place; and succotash may be made from them as well in winter as in summer.

**How to MAKE SUCCOTASH.**—To about half a pound of salt pork add three quarts of cold water, and set it to boil. Now cut off three quarts of green corn from the cobs, set the corn aside, and put the cobs to boil with the pork, as they will add much to the richness of the mixture. When the pork has boiled, say half an hour, remove the cobs and put in one quart of freshly-gathered, green, shelled beans; boil again for fifteen minutes; then add the three quarts of corn and let it boil another fifteen minutes. Now, turn the whole out into a dish, add five or six large spoonfuls of butter, season it with pepper to your taste, and with salt, also, if the salt of the pork has not proved sufficient. If the liquor has boiled away, it will be necessary to add a little more to it before taking it away from

the fire, as this is an essential part of the affair.—*Western Farmer and Gardener.*

**MR. RANDALL'S MERINO SHEEP.**

ON reading Mr. Bingham's last communication, I addressed a note to Col. Randall, desiring him to signify what answer he wished me to make to Mr. B.'s proposition. I received the subjoined reply;

"I decline Mr. Bingham's proposition to send fleeces to Lowell, there to be compared with those of his Rambouilletts, by Mr. Lawrence; *first*, because it would not comport with arrangements which I have made for the disposal of my wool; and, *secondly*, because having consented at your instance to show at the State Fair at Auburn, I cannot see any good reason why Mr. B. should object to either the place or the tribunal. The viewing committee at Auburn, to which the wool would have been submitted, consists of Robert A. Reed, of Washington, Pa.; Edward A. Leroy, of New York; William B. Smith, of Woodbury, Conn.; Samuel Lawrence, of Lowell; S. Newton Dexter, of Oriskany. With the exception of Mr. Reed, I never have seen any of the above gentlemen, and I know not that any of them, including Mr. Reed, have ever seen any of my sheep, or any of my wool, or expressed any opinion in relation to either.

Before such a committee,—deciding where assembled thousands could examine and review the grounds of the decision, I should have been happy to have compared specimens of wool, or if desired by Mr. B. the entire fleeces—or the sheep themselves. I entertain no suspicion of the integrity of Mr. Lawrence, nor do I know that he is any way prejudiced in the premises, but I must confess that I am somewhat surprised that a proposition of this kind is made in answer to mine. **HENRY S. RANDALL.**"

In closing this correspondence with Mr. B., I have only to say, that I have entertained no prejudice against the Rambouilletts; nor am I in any way interested in decrying them. I did believe, and now believe, that even *taking the statements of their friends*, so far as any have been made, we have better American sheep.

The average weight of these Rambouillet sheep has never been given! Why is this? If Mr. B. is perfectly willing, we should like to have the average clip this year stated, giving the number of ram's fleeces of two years' growth, &c

L.

*Cortlandville, July 31st, 1846.*

**ADULTERATION OF MILK.**

THE subject of the adulteration of milk was some time since investigated with great care, by M. Barruel of Paris. Although his observations were intended to apply only to the milk of that city, yet there is little doubt that they will also be found applicable, in a greater or less degree, to all large towns and cities. He commences in stating that *all instruments* for ascertaining the purity of milk, which are designed to attain this end by indicating differences in its density or specific gravity, are *inaccurate and useless* (*a*). For, on the one hand, pure milk differs much in its density, according to the fodder used by the dairy-man for his cows, the butyaceous matter which imparts lowness of density, being made to preponderate by some kinds of

food, and the caseous part, which increases its density, being made preponderant by other kinds. And, on the other hand, although water, the ordinary substance with which milk is adulterated by the dealers in the French metropolis, would alone cause a great diminution of density, the dealers know very well how to prevent that effect, and thereby render the aerometer or lactometer useless. For this purpose, it is only necessary to dissolve in the milk a little sugar or sugar-candy, which is required at all events, in order to correct the flat taste imparted to milk by diluting it with water. The result of M. Barruel's inquiries on the adulteration of milk in Paris, was, that no positively noxious substance was, in any case, found in it; that a common practice was to remove a considerable portion of the cream, by allowing the milk to stand for a limited time, and then to dilute the remainder, or skimmed milk, with water, and to give it the apparent qualities of new milk by one or other of the methods now to be mentioned. The opacity of the milk being much diminished by the water, so that it acquired a bluish appearance, it was at one time usual to correct this defect, by previously mixing wheat-flour with the water with which the milk was adulterated. But this deception was too obvious to the senses. Any person, even of indifferent delicacy of palate, could detect the altered taste of the milk; and besides, after two hours' rest, the flour precipitated to the bottom, and the translucent blueness was restored again to the milk. To prevent this inconvenience, the dealers boiled the flour in the water before mixing it with the milk; and, in this manner, an opaque mixture was obtained, which retained its opacity on standing. As even with this addition, the fabricated liquid had a flat taste, sugar or sugar-candy was dissolved in it, by which means the peculiar sweetness of the milk was nearly restored. This adulteration, however, had become so easy of detection by means of iodine, which renders a mixture of boiled flour and water blue by its action on the fecula of the flour, that M. Barruel was in a belief, that the fraud now described had been but little practised in Paris. Driven from this species of adulteration, the dealers resorted to another mode, so ingenious, that M. Barruel conceived they could not have discovered it without the aid of some scientific person. The method is so simple and cheap, that for one franc (18*½* cents) the opacity and color of milk may be imparted to fifteen quarts of water, and so far secret that no disagreeable taste can be detected. This is nothing more than the employment of an emulsion of almonds, for which some dealers, more greedy and less cautious than the rest, substituted hemp-seed, which, however, is liable to impart an acrid taste. By either of these means milk may be diluted to an indefinite extent; and the only corrective required is a little sugar or sugar-candy, to remove the flat taste. A peculiar advantage possessed by the latter mode of adulteration over every other, is, that the vegetable animal matter, or vegetable albumen of the emulsion, by which the oil of almonds is held in suspension, is coagulated or curdled, precisely like casein, by the addition of acids. This mode of adulteration, however, may be readily detected by the two following circumstances, viz.;—The coagulum or curd, formed by

acids in the mixture of milk and almond emulsion, as compared with that formed in milk alone, is but a little more than one-half; and the facility with which, by kneading the coagulum with the fingers, oil may be squeezed out of the almond curd, while none exists in that of the milk alone.

Another adulteration to which milk is subjected in Paris, is to add a small quantity of sub-carbonate of potash, or of soda, which saturating the acetic acid as it forms, prevents the coagulation or separation of curd; and some of the dealers practise this with so much success as to gain the reputation of selling milk that *never turns*. Often when coagulation has taken place, they restore the fluidity by a greater or less addition of one or the other of the fixed alkalies. The acetate of potash, or of soda, thus formed, has no injurious effects on health, and besides, milk naturally contains a small quantity of acetate of potash, but not an atom of free carbonated alkali. Hence the detection of this mixture is evidently the most difficult of the processes recommended in the various adulterations mentioned in M. Barruel's paper. Indeed, a chemist alone could conduct it; while the two former modes may be easily performed by any person of common observation.

A FRIEND TO HEALTH AND HONESTY.  
New York, Aug. 14th, 1846.

(a) The only instrument that can be of any use in determining the qualities of milk, must be constructed upon the principle of the Scotch cream-gauge or lactometer, described on page 171 of the present volume.

#### CROPS IN MIDDLE GEORGIA.

WHEN I had the pleasure some three or four weeks ago of looking through your extensive Agricultural Implement Store, I promised to give you some account of the crops in Middle Georgia. At the time I left home, about the 10th of June, it had been raining for a week or ten days, and it was apprehended that the wheat and cotton crop was likely to be much injured. I have delayed, therefore, till now, that I might give you a more satisfactory account of the products of that part of the State.

It has generally been supposed, that the Southern States were unsuitable to the profitable growth of wheat; this opinion is certainly a mistaken one, as the facts of the last few years have proven. Ten years ago, and even less, the wheaten flour consumed in Georgia, was supplied chiefly from the Northern States. At present the inferior, and much of the city demand, is the product of the country, an article too, which, in every respect, compares favorably with the best Northern; in some respects it is superior, containing more gluten, and less starch. I had an opportunity about the middle of May, of observing the crops, from within 20 miles of the Chatahoochee, to Augusta, a distance of about 203 miles. The wheat was decidedly more promising than the fields which I saw through North Carolina, Virginia, or Maryland, along the line of the railroad. This crop (I learned from a variety of sources to be relied on) has been secured without much loss from rain, rust, or any other cause, and is superabun-

dant. Wheat may now be purchased in Middle Georgia for 50 cents a bushel, and in the upper county at 37½ cents. The corn crop is also very promising, and indeed at this time is (the early planted) mature. It is believed that it will be purchased at gathering for 12½ cents a bushel, in the Cherokee counties. With the very great capacity of the Southern States for the production of bread-stuffs, and indeed food of all sorts, for man and beast, it is not to be supposed that they will be dependent upon their neighbors. Their true policy, at the present price of cotton, is to direct a part of the labor of the country to the production of provision crops, stock, &c., in which case the product of

cotton would be diminished, and according to the law of supply and demand, the price increased, and the lands preserved, if not improved. Under such circumstances, the Southern States might be exporters of bread-stuffs, as well as of cotton, tobacco, and rice, which, by the by, furnish the basis of all the great commercial operations of the United States, being in fact the surplus productions of the country, which other people want.

The cotton crop, from various accounts, is very backward, but more promising than was expected a month ago—a large crop is, however, not anticipated.

W.M. TERRELL.

Sparta, Georgia, Aug. 3d, 1846.

#### DROVERS' DOGS—BOXER AND ROSE.

THE annexed cut represents BOXER, the English Cattle or Sheep Dog, and ROSE, a Scottish Colley Slut, which were imported by B. Gates, of Gap Grove, Lee County, Illinois; and were selected with great care in Europe. The Colley is much better known in this country than the English breed, which is a heavier dog, uniting strength with intelligence, and therefore better adapted to protect from wolves or sheep-killing dogs. Yet he would not be able to conquer the Large Grey Wolf alone; but those are not often met with, unless in parts thinly populated. Our greatest enemy in Illinois is the Prairie Wolf, which is numerous.

Much has already been written on the intelligence of the Scotch Colley. My opinion is that the English "Butcher's Dog" is no way lacking in that point. Any reader who has visited Smithfield Market, in London, on Monday or Friday, will, no doubt, have formed the same opinion. There you have an opportunity of seeing a number of these useful animals at their work. It would, in fact, be almost impossible to conduct this Market without their aid. There a vast number of different flocks are brought for sale from all parts of the country, to supply this great Metropolis, and are collected in the smallest possible space. The difficulty of keeping them from mingling with others, falls principally on the dog. If one slips away, or a particular one is wished to be caught, it is pointed out to him and is turned back, or held till the owner takes it—the dog always holding them by the side of the head, so as not to bruise the body. By a word, or motion of the hand, they will run over the backs of the sheep, to stop them or turn them in a different direction. I have often admired with astonishment their quick and intelligent actions. They appear to read the thoughts of their master by his countenance, for their eye is continually on his, or on the flock. Nothing else can attract his attention when he has work to perform, and at times I have thought he acted with more judgment than the owner.—*Farmer's Library.*



DROVERS' Dogs.—FIG. 66.

#### DOMESTIC FISH-PONDS.—No. 4.

*Choice of Fish for Stocking the Ponds.*—The tench and carp thrive well together, and of all fishes they are the least inclined to animal food, living chiefly on seeds and herbage, and even swallowing mud and slime; also the larvæ of insects and worms. Among the numerous varieties, Boccius recommends the English or round-bodied carp, but most especially the *spiegel* or mirror carp, so called from the beautiful blue-mottled scales along the sides, much larger than those of the rest of the body. If the pond is not overstocked, the carp will thrive and become so tame that they will rise to the surface at the ringing of a bell, to be fed. In August and September they will bask in the sun on the surface of the water, and sometimes gambol about like so many porpoises. They will scarcely retreat at the approach of any one, and will even allow themselves to be handled. They will attain a large size, and live to an age of 150 to 200 years. Brood carp, in Europe, of three years' growth, generally weigh from three to four

pounds; in six years, from eight to ten pounds, and after that, the increase is from one and a quarter to a pound and a half every year, until they arrive at a weight of thirty pounds, when it may be calculated that the fish is twenty years old. A spiegel carp, however, at sixteen years of age, has been known to weigh thirty-one and a half pounds. Boccius states that he has seen a pair of carps taken out of a pond, the male of which weighed forty-three pounds Saxon (46 lbs. Avoirdupois), and the female forty-eight pounds. Some years afterwards the same fishes were taken again, when the male weighed fifty-two pounds Saxon, and the female, fifty-five pounds. In warmer countries they attain a much larger size, and grow, as stated by Cuvier, to the length of four feet. Under favorable circumstances, the fecundity of this fish is very great, no fewer than 700,000 ova having been found in a single carp; and this property is thought to increase with age. The ova are deposited upon weeds, among which the female is followed by two or three males, in the months of May and June, in the British Isles; and they are in best condition from October till April. The carp is very tenacious of life, and may be preserved out of the water for a considerable time, especially when covered with some moist substance, in cool weather. In Holland, it is sometimes suspended in nets full of moss, in a damp cellar, where, being moistened with water or milk, it is said, it will not only live, but actually improve, under the process.

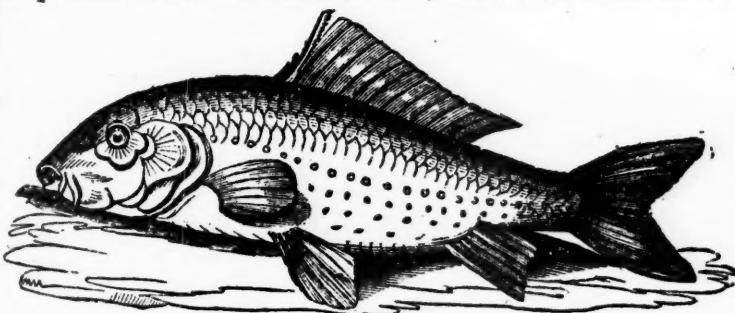
A ten-pound well-fed carp is considered a great delicacy; but the flesh of a thirty-pound fish is tough; indeed, when they much exceed ten pounds, they are fit only for breeding. The flesh-like membrane in the roof of the mouth of the carp has been falsely called a tongue. Walton, who believes this, says, quaintly enough, "The tongues of carps are noted to be choice and costly meat, especially to those that buy them." The tongue of a carp is very small and slender.

The tench (*Tinca vulgaris*) is a thick fish, rather short in proportion to its length, with the color of its back, its dorsal and ventral fins of a dusky hue, and its head, sides, and belly, of a greenish cast, most beautifully mixed with gold. It sometimes attains a considerable size, often weighing 10 or 12 pounds.

It is extremely partial to deep ponds, with muddy bottoms, where, in company with the carp, it buries itself in the mud at the same period. In this state it remains torpid during the winter months; and, as spring advances, it quits its slimy bed; spawns, in Europe, from June to September. The female, as stated by Yarrell, is usually attended by

two males, that follow her from one bunch of weeds to another, upon which the ova are deposited. The ova are very numerous, there being, according to Bloch, nearly 300,000 in a fish of four pounds weight.

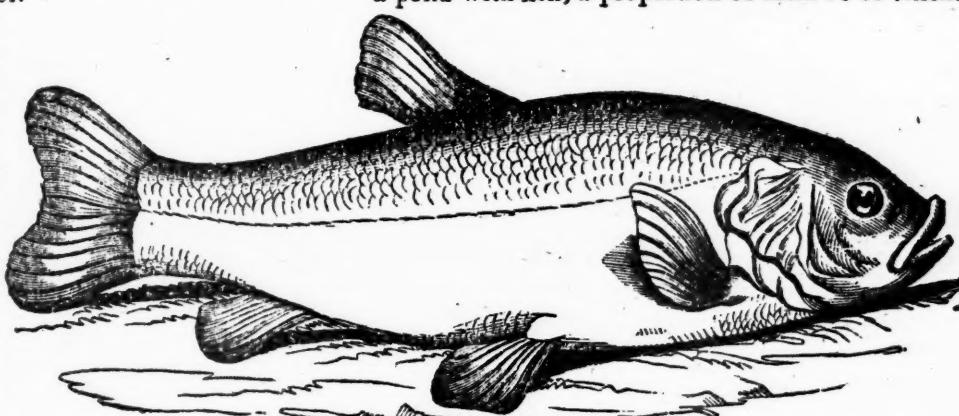
The tench, in England, is reckoned as a wholesome and delicious food; but the Germans are of a



CARP.—FIG. 67.

different opinion. By way of contempt, they call it the shoe-maker. Gesner even goes so far as to say that its flesh is insipid and unwholesome; but this diversity of opinion is to be ascribed more to the difference in feeding them, than to other external circumstances. Both the carp and tench thrive well on boiled potatoes, or Indian meal.

It is remarkable that no fish of prey will ever attack a tench, which, it has even been supposed, acts medicinally on other fish. In Germany, it is called the *doctor-fish*, and Walton calls it the "physician of fishes," especially to the pike; for, "the pike," says he, "being either sick or hurt, is cured by the touch of the tench. And it is observed that the tyrant pike will not be a wolf to his physician, but forbears to devour him though he be never so hungry." If there be any truth in this supposition, it may arise from the glutinous, slimy quality of the skin of the tench; for it is certainly affirmed by many naturalists of repute, that when fish have been wounded by the fangs of an enemy, or struck by a hook, they have frequently been observed, and taken in company with the tench. For this reason it has been recommended that in stocking a pond with fish, a proportion of them be of tench.



TENCH.—FIG. 68.

*Brooding.*—The proper time for brooding a pond is about the end of October, in Europe, but earlier in the northern parts of the United States. Boccius recommends for every acre of water in extent, 200 brood carp; 20 brood tench; and 20 brood jack or pike, all of one season's spawn. Each of the successive ponds is to be stocked in like proportion;

that is, the second pond the year following the first, and the third, again a year later, so that each will then come round in its turn, to be fished. By this arrangement there will always be a superabundant quantity of brood in store, to restock the stew-ponds, and sufficient left for sale.

By overstocking the ponds, the fish become sickly, lean, and bony; and it is stated as a remarkable proof of the care required in this respect, that if the proper number of fish be stored, the weight in three years will prove equal to what it would have been, had twice the number been put in; so that the smaller number actually produce the same weight as the larger from a given area of water.

New York, August 15, 1846. D'JAY BROWNE.

**THE TOMATO.**—Thomas Jefferson Randolph, the *protégé* of Jefferson, in an address before the Agricultural Society of Albemarle county, Virginia, delivered some time since, stated that Mr. Jefferson could recollect when the tomato was cultivated as an ornament to the flower-garden, and deemed poisonous.

#### PRACTICAL FACTS ABOUT PORK AND BACON.

*What is the loss in weight on making pork into bacon?* This question is often asked, and every farmer, particularly in the West, ought to know how to answer it. As a general and safe rule, from facts, within my own knowledge, I have always contended that it is better for the purchaser to buy pork in the hog, and make his own bacon, when he can do it for one half the price per pound, than to buy it ready made. That is, if pork is usually worth 3 cts. and bacon "hog round," 6 cts., it is better to buy the fresh pork. I am writing for the West, and in Western language. That your Eastern readers may understand, I will say that "hog round" means 2 hams, 2 shoulders, and 2 sides—out of which latter the bones should always be taken. I always trim off belly pieces for lard. Hams and shoulders too are well trimmed. The method of salting often astonishes some of the new emigrants from Yankee land. Nobody ever made better bacon for 15 years than I have, and I never use a pork barrel. I sprinkle about 2 oz. saltpetre and 6 lbs. of N. Y. salt to a hundred of pork, piled up on a bench, or in the corner of the smoke-house, like a pile of bricks. I let it lie about as many days as the hams weigh pounds each—overhauling once. Then hang up far away from the fire, in a very open and airy smoke-house, and smoke well with hickory or other sweet wood. Then draw loose cotton bags over each joint, and tie round the string by which the meat hangs. Do this before the flies come in the spring, and you may let it hang as long as you like, and it will be good—at least, mine is so. For many years our house has not been without a supply of this most excellent kind of meat, which is a much more healthy food than the eternal round of fresh beef, &c.

But to return to my subject. On the 20th of January, 1846, I killed 5 hogs, about a year and a half old, and one about half that age, of the Berkshire and China breed, fattened upon corn fed in the ear, the quantity not counted, as it was too cheap to regard that.

The following table will show the weight of each hog, and the weight of each piece of meat cut for bacon.

Hogs.	Hams.	Shoulders.	Sides.	Heads.
312 lbs.	30 lbs.	32 lbs.	44 lbs.	23 lbs.
	30 ..	30 ..	38 ..	
308 ..	29 ..	34 ..	40 ..	21 ..
	30 ..	35 ..	38 ..	
295 ..	30 ..	35 ..	37 ..	19 ..
	32 ..	35 ..	34 ..	
289 ..	29 ..	29 ..	34 ..	21 ..
	27 ..	30 ..	38 ..	
259 ..	27 ..	23 ..	26 ..	21 ..
	27 ..	24 ..	26 ..	
181 ..	20 ..	19 ..	19 ..	12 ..
	20 ..	22 ..	19 ..	
1644	331	348	393	117

*Scraps, &c.*—21 lbs. of feet; 213 lbs. of sausage meat, and ribs and back bones and trimmings off; 150 lbs. of leaf lard and fat trimmings; 71 lbs. loss in cutting, and difference in weighing; 331 lbs. weight of 12 hams; 348 ditto 12 shoulders; 393 ditto 12 sides; and 117 do. 6 heads:—1644 lbs.

This pork when killed was worth 3 cts. a pound—I will say it would only shrink the 44 odd pounds in taking to market, at which it would amount to \$48. The lard tried out 129 lbs., a most beautiful article, the scraps not being much squeezed, as that would rob the good wife's soap tub.

On the 28th of April, the bacon being well smoked and dried, was ready to bag up. I weighed it, and found that the 12 hams weighed 304 lbs. (loss 27); 12 shoulders, 331 lbs. (loss 17); 12 sides, 259 lbs. (loss 34); I am inclined to think that an error of 10 lbs. was made in the weight of the shoulders, as I have heretofore found the percentage of loss about the same on these as on the hams. I will therefore throw off ten pounds on these, and we have 1,113 lbs. of bacon and lard in good weight and order, for market, which at 6 1/2 cts. a pound, which is a fair average price, will come to \$69.56. The heads and sausage meat are worth one cent a pound, \$3.30; 24 feet, 14 cts., will make an even sum of \$73; from which take the \$48 price of hogs before cutting, and it leaves a very pretty little sum to pay for a dollar's worth of salt and saltpetre, and the little trouble of handling. But it must be small-boned *fat* hogs, as these were, to do it. In this case I could sell the bacon and lard at 4 1/2 cts., and be well paid for trouble and cost of making bacon, because the heads, &c., are worth much more than I stated them at in any family.

The principal object in this statement is to inform those who have had less experience in this matter than I have, whether it is most advantageous to sell their hogs fresh, or cut and salt; and for that purpose I have endeavored to be accurate. Each person in his own place will judge of his own market and relative prices, and if his hogs are not so good as mine, make greater allowance for loss and offal.

Will some one who keeps a pork barrel, make a similar statement, and publish for the benefit of your readers?

SOLON ROBINSON.

Lake C. H. (now called Crown Point), }  
Ind., May 15, 1846. }

**HOW TO DESTROY THE CANADA THISTLE.**

I AM an old man, and not much in the habit of using my pen, as you will easily guess—having in my younger days been more remarkable for plowing a straight furrow than writing straight lines; but you seem to be very good-natured, and I hope will let me “tell my experience,” as they call it, about weeds on farms; which I shall try to do as briefly as possible, trusting that others may be the better for it.

In the July No. of your paper, a “Canadian Naturalist” complains with much justice, of the carelessness of farmers in suffering perennial-rooted weeds to take possession of the soil, to the injury of the crops; and says, if farmers would be unanimous in their efforts to exterminate them, even the Canada thistle might be conquered. It is a vile weed, which has had as many names as a pick-pocket (if he is a patriot, he will thank me for reminding him that it is not a native of this continent); and he does not wish to get rid of the unwelcome intruder more earnestly than his brother farmers on this side of the St. Lawrence. But though they appear to be indifferent, on one point they are unanimous, and that is, in lamenting most feelingly that individual care is of no use, and that all should go to work together.

Now I say, *let every man weed on his own side of the fence*, if he can do no more, and I prophesy that in a short time weeds will be as sure a mark of bad farming as a broken gate, or a dead horse hauled out on the common, and left unburied, to taint the pure breath of heaven for miles around, wasting ammonia enough to fertilize a forty-acre field.

When I took my present farm it was the worst in a circuit of ten miles, making my house the centre point; and now I believe it is in a condition to bear a comparison with some of the best farms in the United States—for instance, that of George Schaeff, Esq., in Whitemarsh, about fourteen miles from Philadelphia, which is much less known than it should be. There are no weeds in my fence corners, unless you can so call a fine large wild clematis vine, which I left to ornament an old tree, with its clusters of snowy blossoms, where the cows love to stand in its shade on a hot day—or an elder bush or two, just enough to give the old women elder flowers for medicinal purposes; or, perhaps, here and there, a cluster of purple asters and golden rod, so disposed as to show that they are left on purpose—but no wild carrot (*Daucus carota*), no Ben Salem (*Chrysanthemum leucanthemum*), or rausted weed.

Now the whole secret of this beautifying process is this; I weed on my neighbor's side of the fence, as well as on my own; not a weed is suffered to so raise its head in peace—for the proverb is true, as most proverbs are, which says, “One year's seeding makes seven years' weeding.” I have a good chisel firmly set in the end of a strong cane, which I always carry when I go out with my men; and I generally come home pretty well tired with the labor of cutting off *close to the ground*, every large-rooted weed I find in my walk. One day when I had been out longer than usual, and had kept breakfast waiting, my granddaughter was very curious to know what I had been doing on neighbor Jackson's hill, a stony field, that was hardly

worth cultivating. I told her I had been weeding on my neighbor's side of the fence—that Jackson was sick, and I had found the blue thistle (*Echinum vulgare*) was beginning to spread about here.

A friend of mine, in a Yankee settlement, not far from the New York line, conquered the Canada thistle in pretty much the same way, when nearly twenty years ago it was first noticed there. He first proposed to have a bee (a), and exterminate the intruder at once, but it did not take with his neighbors, who thought it would be time enough when the weeds came up upon *their* ground; so he, with two other gentlemen, made it *their* business, in their leisure hours, and when they walked out, to cut off all the flowering stems, when they could not take time to destroy the roots; and besides conquering the thistles, they gained a victory over their stupid neighbors, who now acknowledge that they have been benefited by his having taken the thing in time, for they find that wherever neglected, the weeds will spread; and each one encourages his neighbor to weed on both sides of the fence.

**AN OLD PENNSYLVANIAN FARMER.**

*July 7th, 1846.*

(a) Lest any one should suppose a bee means nothing more than the industrious little insect of the name; and as it is a somewhat local term, among my Down-east brethren, I will explain—but it shall be at a more convenient season.

**IMPORTED DURHAM CATTLE.**

HILPA, the first cow of the two which I wrote you some time ago Mr. Bates was to send me, reached here this morning. She came in the packet-ship New York, Capt. Cropper, which arrived in your city a day or two ago; and I hope you had an opportunity of seeing her there, (a) as she is, I think, a fine animal, and not inferior to any Mr. Bates has sent me. She has a superior brisket, and remarkable width across the loins. Her handling is very good. The Bates cross in her is plainly discernible. She stands right on the ground—not too high, nor too low. I hope you have seen her; and if so, you are much more capable of forming an opinion of her than I am. Mr. Catlin, who shipped her from New York up the river, informs me that Capt. Cropper speaks highly of her milking qualities, both as to quantity and quality.

This cow, Hilpa, was stunted to Mr. Harvey's celebrated prize bull Walton, on the 28th of May, two or three days before she was shipped, by direction of Mr. Bates. You know Walton is a descendant of Mr. Bates's herd. The other cow, Cecilia, Mr. Bates purposed to have stunted to his second Duke of Oxford, before she is sent out. I have, however, written to him to put her to his fourth Duke of Northumberland, which bull he informs me he retains at home for his own herd, while the other Duchess bulls are all let out for the season. I herewith enclose you a copy of the pedigree of the two cows, signed by Mr. Bates, which I wish you would do me the favor of publishing in the Agriculturist, with his signature at the bottom, and also the remarks he makes in relation to the prize calf of Hilpa, calved in 1844—which certificate is in his own hand-writing, and is signed with his own name.

**GEORGE VAIL.**

*Troy, July 15, 1846.*

Pedigrees of two cows bought of Messrs. Bell, Kirkleavington, near Yarm, Yorkshire, England, by George Vail, Esq., Troy, United States of America.

Mr. Thos. Bell's cow Hilpa, roan color; calved May 23d, 1840. Got by Cleaveland Lad (3407), dam (Hawk-eye), by Red Rose bull (2493); grand dam (Hart), by Rex (1375); great grand dam bred by Mr. Richardson, of Hart, Durham County, who had the breed above thirty years, and were all roan colors, and good milkers.

Mr. Robert Bell, Junr., cow Cecilia. Red and white color; calved October 6th, 1841. Got by 3d Duke of Northumberland (3647), dam by Short-Tail (2621); grand dam (Chapman), by Skipton Bridge (5208), and from a tribe of cows, all good milkers, and long in possession of the breeder thereof. I can certify that the above are correct pedigrees, the *Messrs. Bell having had their stock from me.*

The son of Hilpa, named General Sale, by Duke of Northumberland (1940), when a calf in 1844, obtained the highest premium given by the Yorkshire County Agricultural Society, at their Show, held at Richmond; and also the same autumn obtained the highest premium at the Durham County Ag. Society Show, held at Stockton; and the following day also obtained the highest premium given by the Cleaveland Ag. Society. I certify to the correctness of the above facts.

Signed, THOMAS BATES.

*Kirkleavington, March 16th, 1846.*

(a) We noticed this superb cow, on page 261 of our last number; but the owner's name, and some other particulars, were, in our absence from town, unfortunately left out in making up the form. We need only say, that Hilpa is all, and more than her owner represents, he having been quite diffident in his description above, in giving all her good points. It is gratifying to add, that Mr. Vail has been eminently successful as a breeder, and is annually making considerable sales of stock. We presume that several of his animals will appear at the forthcoming Show of the State Ag. Society, on the 13th, 16th, and 17th of this month, at Auburn.

#### PRIVATE AGRICULTURAL SCHOOLS.

I CANNOT at all agree with your "Reviewer," as to the practicability and future prospects of Agricultural schools, in private hands. At a single dash of the pen, he seals their fate so positively, as seems to indicate a desire on his part, to prevent any further development of that patriotism he so highly commends.

We have a class of people in this country, who seem to be always looking to government for the supply of every want of a general character, that is, in which any considerable portion of the community are interested. Sound views on this subject would lead us to see, that the true aim and end of government is to accomplish *only* such things for the governed, as cannot be reached by individual action. Whenever a state dips into matters beyond its proper sphere, and takes in hand banking, colleges, internal improvements, and the like, there will always gather around a horde of office-seekers and political speculators—to the detriment

and mismanagement of the whole affair. Where salaries and appointments are, there will these characters insinuate themselves, in spite of all the guards and checks that can be thrown up to prevent it. The less officers, money, and machinery, there are used in the administration of a government, the better. Every consignment of the objects mentioned above, to the state, violates this plain political maxim, and should therefore be discouraged by all good citizens.

Probably, more than three-fourths of all seminaries of learning in the world, have been sustained by individuals, in a private associated capacity. This being the fact, in regard to legal, medical, and theological science, why may we not infer that it is just as feasible in regard to agricultural knowledge? If the State can justly be called upon to take the latter in hand, why may not mechanics also claim their "State Institution?"

In the very nature of things, we might reasonably expect that private enterprises would be the more likely to succeed. Acting from motives of devotion and attachment to the spread of knowledge, or with a view to pecuniary profit; in either case, they have every inducement to adopt the best modes of conducting an institution, in order to secure their end. Give us teachers and managers whose "hearts are in the matter," rather than any salaried governmental professor.

The advancement of human knowledge, and especially agricultural knowledge, is an object well worthy the best efforts of any man. But those who look to the State to do this for them, will often be most sadly disappointed in their wishes for the "diffusion of knowledge among men," as the late Mr. Smithson styles it, in his most unadvised bequest of half a million to our government. Who does not believe, that if the matter had been left in the hands of private trustees, the fund would long ago have been applied to its proper object, and hundreds already been benefited by it, and fitted to be useful to their country, and the world? How would the donor decide this question, could he rise from his resting-place, and see the manner in which his trust has been neglected, not to say abused; for I verily believe, a large majority of our public men would be glad to have this business off their hands, not knowing exactly what to do with it, and feeling they have a service laid upon them, not belonging to their stations.

The other branches of human learning being already comparatively well provided for in this country, it certainly is desirable that this fund should be devoted to the spread of agricultural knowledge, and we are not without hopes that this direction may finally be given it. Let us have no "national school." Let our only experiment—West Point—settle this question. But let us have an annual appropriation for the collecting of materials, and sending forth substantial public documents, containing real information to the agricultural community, in regard to their business. Witness the regular, systematic manner, in which the British Legislature so zealously collect information in regard to the various useful arts of life. Let us follow their example. The periodicals of our day are fast creating a taste for this kind of

reading; and we hope the day is not far distant when such documents will be read with attention and profit.

"But especially let us encourage agricultural schools in private hands; for, in the language of Judge Buel, our country needs them." And we have the fullest assurance of their final success. I had noted down some further remarks in regard to this subject, after reading the observations of "Reviewer" upon which we started, but for the present forbear.

A. R. D.

Hackett's Town, N. J., July 10th, 1846.

#### HORTICULTURAL NOTES.

*Isabella Grapes.*—My gardener had permission to prune one of my vines in his own way. It had been spur-pruned in February, one eye left at each joint, and the laterals broken off in June. Early in July he shortened the bearing branches two eyes beyond the last bunch of fruit. The grapes advanced rapidly in their growth, and for two or three weeks were the best looking in the garden. They then became stationary, and those treated in another manner became much larger, and of a healthier aspect. It would seem, therefore, that stopping, at any rate short stopping, is not the best mode of treating this vine.

A friend of mine has a most magnificent young Isabella vine in the city, which he has not pruned at all, since he shortened it in early spring. My own vines have been treated as follows:—Winter-pruning on the spur system (too much bearing wood left, I suspect), one eye only left to each joint, the laterals carefully and repeatedly broken off, and (against my wishes) some shortening during the summer, and only one bunch left on a branch. The comparative result is this. My friend has most fruit; mine is the handsomest and most perfect.

One of my neighbors pruned some old vines last year, very severely cutting off large masses of old wood. This year he has left the vines entirely untouched; the yield is very large, and a great deal of the fruit is good—much of it inferior. A single vine, from which he removed the laterals at one joint from their origin, has turned out the best.

My conclusion is this—the Isabella requires severe winter pruning, if the spur system is adopted, but one eye should be left.

*Manures.*—I gave two of my vines a rich top-dressing of half-rotted stable manure, late in June. About one-third of the fruit became mildewed, and the whole of it was otherwise inferior to the rest of the crop. My friend manures freely, with the same manure, in the autumn—his fruit is not mildewed. Too rich stable manure is not the only cause of mildew in the grape. I see it where there is a want of free circulation of air.

*Insects.*—I met with the brownish-yellow beetle, one inch long, in the leaves, on which it appears to feed; but their depredations have not been extensive enough to do harm. The rose-bug consumed the leaves two years since, leaving only the network of vessels remaining. I have not seen them since. The turtle-bug is beginning to show itself, but they do more harm to the squashes than to the grapes. I find under the grape leaves a small

white fly, and a general appearance like down, which, when looked at with a glass, is seen to be animated. The foliage becomes rusty, and the fruit of course is more or less injured. Will some of your correspondents make known a remedy? Would stripping off the old bark, and washing with soap suds in the spring, destroy them?

At the extremity of the branches of the vines, myriads of small black ants are often seen. I am always reminded of old Hays and his posse of police officers, when I see these sentries. Are they after other insects? If so, what insects, and what harm will they do? I have seen also a small black fly, and another insect, resembling a flea, but am not aware that they have done any injury. More on this subject hereafter.

AN AMATEUR GARDENER.

#### REPLY TO REVIEW OF MARCH NO. :

YOUR June No. came by an accidental opportunity to-day, from the office, and I set myself at once to answer Reviewer. The information he desires I will cheerfully give, to the extent of my abilities.

The people of the North are greatly mistaken if they think the soil of Mississippi to be inexhaustible. A portion of it is as rich as the lands on the banks of the Nile; and a portion as poor as the poorest lands in New Jersey, where the black-jack runners kill themselves searching for food for the tree. Our soils vary exceedingly, no country more so; the lands lying on the Mississippi are a rich alluvial, with a heavy vegetable mould on the surface, and containing much siliceous matter, but in very minute particles; the subsoil is clay, and a very rich earth, having much the characteristics of loam and also of marl. I speak more especially of Warren County, directly west of me, the county seat of which is Vicksburgh. Vegetables will grow most luxuriantly in it, and it is an excellent top-dressing to land; it possesses the peculiarities of apparently getting neither wet nor dry—it is very valuable. Farther back, lands are not so rich, when level, are generally good, say as far as 25 to 40 miles on a line; some level lands are now poor in the woods, cold, whitish clay; some hilly lands are the richest. To know the country it must be seen. My pen, though "free," lacks a head to guide it, to give a faithful description. Much of our lands, if fresh and under good cultivation, will produce say 30 bushels of corn; but if plowed, as is very usual, two or three inches deep, the sun causing rapid decomposition and rapid evaporation, with real rains, not showers, they soon deteriorate. I can show a plantation, now worn out, that produced 15 years ago 8 bales of cotton per hand, under a thrifless course of culture. When I say that "the subsoil possesses all the requisites of a good soil," having stated previously that the soil was worn out—I meant that the salts existed in sufficient quantity to form a good soil, by proper attention. And this attention should be deep and fine tilth, a bountiful supply of vegetable matter, and protection from the sun.

As to returning to the earth more than we take away, I will tell you what can be done. The last

week in May peas can be sown between rows of corn, these will cover the land entirely before the 15th of September. The first frost will kill the vines. In September or October sow down rye or Egyptian oats; these will feed stock during winter, will protect land from rain measurably, and from washing, and can be turned under in February or March. Here are two crops; but if desired to turn under at different times, do so in fall, sow grain, and then turn under the grain. If desirable to turn under again another crop, sow oats in February and March; turn these under about June, when heading out, and plant for corn. Here are three crops turned under. But it is better to sow peas in March, say about the 15th; these will cover the ground in May, plow in, and sow again, and I believe a third crop can be plowed in time enough for grain. Last year, and the two preceding years, I plowed in as much rye as my plows could turn under, in March, having had the pea-vine on it in the previous summer. I think that good lands can be kept good; and I believe I have land now with the twentieth crop on it, that will yield more corn or cotton than it did in 1830, or about that time, comparing with the best crops of the period. To prove it, my crop in my orchard, cut, gave me last crop, on one part, over 1,600 lbs of seed cotton; on another part, about 50 bushels of corn. In 1833-'4, my cotton was 900 lbs. per acre. I remember that year, by my first experiment with Gulf seed; the past year I tried a similar one on the same land. And it is this that led me to remark on the negligent cultivation of my brother "planters." We are "planters" here, not because we are all *large* "planters," nor that "a farmer" is a disreputable name, but that we confine ourselves to one crop.

To tell you what sort of planters we are, would require time; but we are a very clever set of fellows, and you Northerners may thank your stars that we are not more attentive to our own interests; if we loved money more, you would see less of it; we make a great deal of money, and spend it in all sorts of "Yankee notions," and sometimes spend it before we make it—but this is personal—excuse me. You may ridicule, but, sir, as sure as you live, we can turn under a coat of cow-peas every year, fully equal in value to your best clover leys, and as it is killed by early frost, of course we can sow grain and plow that in, for March or April planting.

The "cow-pea"—we generally call all this family cow-peas—differs in every particular from the garden pea, which we country people call "the English pea"—they differ in shape, color, and size. The black crowder is about as large as the marrowfat. The grey crowder nearly as large. These are rounder than the real cow-pea, which is nearly as large, but more kidney-shaped, and of a russet color. Then comes the red ripper, smaller, and not quite so long, but still kidney-shaped; then the stock or tory pea, lady pea, calavans, &c., the latter of greyish color, and about the size of a duck shot, a very delicate table pea, and to my notion is just ahead of any of your foreign English peas. The vine will grow, I verily believe, 20 to 100 feet, in a season, if we take the branches, and add to the main vine. The stem is frequently as large as a town lady's *little finger*—I

have seen them, but never dared touch. It rises from 3 to 6 inches, and branches off, and continues to branch, until the close of the season. I have seen, on good land, where 8 to 12 quarts had been sown to an acre, the peas so rank that a horse as stout and fleet even as Boston, could not make his four miles through them, in a day.

"What, good for?" "haulm." You say too much. How know you that they have a haulm? But, never mind, I care not to ferret you out. "What good for?" Like the negro's rabbit, "good for ebery ting." The vine, if pulled or cut before frost, and cured, will feed horses, cattle, and sheep. The pea, if gathered and kept from spoiling, will feed man and beast, will fatten superior to corn.

We sow the pea, or drop it, either at second working of the corn, if in hills, or when we plow to lay by, which is generally done when corn is *in bunch*—that is, when the tassel is in a bunch of leaves at the top, but has not quite appeared—that is what we call "*in bunch*." The vine is cut or pulled as late as we can, to avoid frost. We seldom gather peas but for seed, and then when most are ripe, about frost or a little after, we feed the residue on the land to hogs, or by giving them the run of the field. Coke has to gather peas, for want of corn.

Feeding hogs on cotton seed and peas, ground! From February to August we have as much as we can all do to kill grass, then pull fodder, and then enough to gather our crop, that feeds and clothes one-half of you all, until February. We can make cotton at 4 cents per lb., and buy meat at 4 cents, better than go to all that sort of work. But no need for it. I can show you clover two feet high; I can show you feed for hogs without fences.

"This may be plain English in your latitude." Why, sir, suppose my friend S. were to send me his boy, to live with me, and P was to direct him thus:—S. Jr., I wish you would not spend more time from the cotton field than would suffice to gather rye, oats, and peas, for seed, to plant our next crop. Would it not mean that we reaped and gathered for seeding alone, not for selling or for feeding? Why, sir, at this very time, I have some 10 acres, more or less, of rye, that will not be cradled, because I have cut enough for seeding all the land I desire to seed. The seed is the crop; the balance of the rye and peas is left on the ground for hogs or cattle. Is there anything mysterious in this, only that we have no need to gather anything? Have you never heard of the West feeding large fields of corn to stock, not gathering the crop?

The grass that follows oats and rye, is crab grass, and equal in nutritive qualities to any grass in the Empire State, or among the prairies, near the "North Pole." We cut our grain from the 5th to the 15th of June, crab grass then springs up on good land, and will cover the earth before frost, so as to give nearly two tons of cured hay.

I have no "poor starved niggers." So far from it, I guess they dine on as nice bacon, cabbage heads, beans, and Irish potatoes, these days, as any other man—white or black. Of course they cannot starve even if they get no other meal, as I can prove by one white man, who is content with one good meal a day.

About fencing—why should I quarrel about this matter, although the editor of the Agriculturist has something on this subject? We cannot teach "Wahoo Indians" that we can do without fences.

"Write again, Doctor." Thank you, friend Reviewer; but this liberty is already secured to me by our A. B. A. But if he would not admit my articles, I would write for somebody else, or burst. The steam gathers so fast, that I must let off occasionally. But, friend Reviewer, be ye careful, you may drive some valuable pens off; many are wary, they can't bear to be ridiculed. M. W. PHILIPS.

*Edward's Depôt, Miss., June 14, 1846.*

#### GARDENING.—No. 7.

THE next step in the study of the science of gardening, is to consider the natural agents of vegetable culture.

The earthy matters which compose the surface of the earth, the air and light of the atmosphere; the water precipitated from it, the heat and cold produced by the alternation of day and night, and by chemical composition and resolution, include all the elements concerned in vegetation.

Earths are the productions of the rocks which are exposed on the surface of the globe, and soils are earths mixed with more or less of the decomposed organized matter afforded by dead plants and animals. Earths are, therefore, variously composed, according to the rocks or strata which have supplied their particles. Sometimes they are chiefly formed from slate rocks, as in blue clays; at other times from sand stone, as in siliceous soils; and mostly of a mixture of clayey, slaty, and limestone rocks, blended in proportions as various as their situations. Such we may suppose to have been the state of the surface of the dry part of the globe, immediately after the last disruption of the crust; but in process of time the decay of vegetables and animals forms additions to the outer surface of the globe, and constitutes what are called soils; the difference between which and earths is, that the former always contains a portion of vegetable or animal matter.

The manner in which rocks are converted into soils, Sir H. Davy observes, may be easily conceived by referring to the instance of soft granite. This substance consists of three ingredients, quartz, feldspar, and mica. The quartz is almost pure siliceous earth in a crystalline form. The feldspar and mica are very compounded substances; both contain silica, alumina, and oxide of iron; in the feldspar there is usually lime and potassa, and in the mica, lime and magnesia. When a granite rock of this kind has been long exposed to the influence of the air and water, the lime and potassa contained in its constituent parts are acted upon by water or carbonic acid; and the oxide of iron, which is almost always in its least oxidized state, tends to combine with more oxygen; the consequence is, that the feldspar decomposes, and likewise the mica; but the first the most rapidly. The feldspar, which is, as it were, the cement of the stone, forms a fine clay; the mica partially decomposed mixed with it as sand; and the undecomposed quartz appears as gravel of different degrees

of fineness. As soon as the smallest layer of earth is formed on the surface of the rock, the seeds of lichens, mosses, and other vegetables of the kind, which are constantly floating in the atmosphere, and which have made it their resting place, begin to vegetate; their death, decomposition, and decay, afford a certain quantity of organizable matter, which mixes with the earthy materials of the rock; in this improved soil more perfect plants are capable of subsisting; these in their turn absorb nourishment by the agency of water and the atmosphere; and, after perishing, afford new materials to those already provided; the decomposition of the rock still continues; and at length, by such slow and gradual processes, a soil is formed, in which even forest trees can fix their roots, and which is fitted to reward the labors of the cultivator.

The formation of peaty soil is produced from very opposite causes, and it is interesting to contemplate how the same effect may be produced by different causes, and the earth which supplied almost all our wants, may become barren alike from the excessive application of art, or the utter neglect of it. Continual pulverization and cropping, without manuring, will certainly produce a hungry, barren soil; and the total neglect of fertile tracts will, from their accumulated vegetable products, produce peaty soils and bogs. Where successive generations of vegetables have grown upon a soil, unless part of their produce has been carried off by man, or consumed by animals, the vegetable matter increases in such proportion, that the soil approaches to a peat in its nature, and if in a situation where it can receive water from a higher district, it becomes spongy, and permeated with that fluid, and is gradually rendered incapable of supporting the nobler classes of vegetables. Lakes and pools of water are sometimes filled up by the accumulation of the remains of aquatic plants; and in this case a spurious peat is formed. The fermentation in these cases, however, seems to be of a different kind. Much more gaseous matter is evolved; and the neighborhood of morasses, in which aquatic vegetables decompose, is generally abominable and unhealthy; while that of the true peat, or peat formed on soils originally dry, is always salubrious.

Soils may generally be distinguished from mere masses of earth, by their friable texture, dark color, and by the presence of some vegetable fibre or carbonaceous matter. In uncultivated grounds, soils occupy only a few inches in depth on the surface, unless in crevices, where they have been washed in by rains; and in cultivated soils their depth is generally the same as that to which the implements used in cultivation have penetrated.

Systematic order and an agreed nomenclature are as necessary in the study of soils, as of plants and animals. The number of provincial terms for soils which have found their way into books on cultivation, is one reason why so little use can be made of their directions. A correct classification of soils may be founded on the presence or absence of organic or inorganic matter in their bases. This will form two grand classes: viz., primitive and secondary. These classes may be subdivided into orders, founded on the presence or absence of saline, metallic, and carbonic matter. These orders

may be subdivided into genera, founded on the prevailing earths, salts, metals, or carbon; the genera into species founded on their different mixtures; the species into varieties founded on color, texture, &c.; and sub-varieties founded on moisture, dryness, richness, lightness, &c.

Plants are the most certain indicators of the nature of a soil; for while no practical cultivator would engage with land of which he knew only the results of a chemical analysis, or examined by the sight and touch a few bushels which were brought to him, yet every gardener or farmer, who knew the sorts of plants it produced naturally, would be at once able to decide as to its value for cultivation. For example, the garget and striped maple are generally found on a warm, loamy soil; the rush on a clayey soil; the mullein and sorrel on a dry, sandy soil; and the cranberry on a peaty soil. But these plants, however, are not to be absolutely depended upon, as they are sometimes found in soils directly opposite; as climate and natural irrigation have much more influence on these plants than mere soils.

The remaining natural agents of vegetable culture, I shall treat of in another number; and shall here close the subject of earths and soils by stating that, according to the chemical analysis of Bergman, the soil best suited for the culture of most vegetables, contains four parts of clay, three of sand, two of calcareous earth, and one of magnesia.

L. T. TALBOT.

#### WOOL-GROWING IN WESTERN NEW YORK LANDS.

I AM glad to see so much interest manifested in our Western New York lands. They are not properly appreciated. There is no better grazing land in any state, or situations more healthful or pleasant. All that "Western" says on the subject is true, as I know from my own experience. We have two small farms lying upon the high land, back of our main farm, and upon the Genesee slate, which underlies the most, indeed, nearly all of this section of the country. When it came into our possession, some twelve years ago, it had been worn out, as the owner supposed. We stocked down all that was under the plow, and have used it for a sheep-walk and meadow ever since. The land that with difficulty carried three sheep to the acre, will now carry six well, and serve better than it did three at first. There are thousands of acres which can be purchased at from \$6 to \$12 per acre—that 40 acres will carry 100 sheep well, both summer and winter, and after a few years the same can be done on 30 acres. I can pick out a great many farms with good buildings, and the land very fairly fenced and cultivated, that it is safe to calculate 300 sheep to every 100 acres of cleared land, which can be bought for \$10 and \$12 per acre.

To make it profitable, no man should undertake without adequate capital. A man wants at least 1,000 acres, and the money to stock it, and enough to carry it on for a year, without looking to the avails of the farm. Thus situated, with a good flock of sheep, and a few breeding mares, he can be about as independent a farmer as need be. Indeed, none can be more so in any country.

To show what might be done, I have made a

few figures, which I believe will be found to fall below rather than exceed the net profits to be derived by judicious management. In most instances the figures are from my own experience.

1,000 acres, say \$10 per acre,	- - - - -	\$10,000
2,000 sheep, \$1 per head (high)	- - - - -	2,000
10 breeding mares, \$75,	- - - - -	750
Waggons, harnesses, tools, &c.,	- - - - -	300
Capital invested,	- - - - -	\$13,050
Loose change, say,	- - - - -	1,000
Total capital,	- - - - -	\$14,050

<i>Expenses.</i>			
Interest on capital—say,	- - - - -	\$1,000	
2 hired men per year, and board,	- - - - -	400	
Extra hired help in haying and harvest,	- - - - -	200	
			\$1,600

<i>Receipts.</i>			
Wool of sheep,	- - - - -	\$2,000	
Increase,	- - - - -	700	
10 colts,	- - - - -	500	
			\$3,200

It would thus appear that a man can realize at least 11 per cent. for his capital and time, with the utmost ease.

In making the estimate, I have allowed 300 acres for wood land and waste, about the usual quantity on that number of acres. This could be diminished by at least 100 acres, and adding at least \$300 per annum more to the income. I divide the cleared land; 420 pasture, 210 meadow, and 70 grain. If the manure made by the sheep and horses is properly returned to the land, both the meadow and grain land may be decreased, or the flock increased. Twelve tons of hay for 100 sheep is an ample allowance for the winter. If fed on grain they will not eat so much. Ten tons of hay and 50 bushels of corn would winter a flock of 100 in the very best manner. I have allowed 20 acres of pasture, 10 of meadow, and 3 for grain, for every 100 sheep. Eight acres for meadow is sufficient, for there is little meadow land in that section that will not average at 1½ tons to the acre, and two acres of grain is all that need be given. I have not therefore overstocked the farm. An active enterprising man could realize as much from his capital here as in any other section of the Union.

I am really glad you are closing that sheep controversy. Like Mr. Bingham, I rejoice in all *real improvement* of sheep. But let the public have some other proof than the "guessing" of owners about heavy fleeces, and all that kind of "gammon." Mr. Bingham takes the true course, and I venture to say will have but few competitors.

Darien, July 4, 1846.

T. C. PETERS.

**FEEDING LARGE DOGS IN TOWN.**—I would advise horse's flesh, or bullock's liver, well boiled, to be given once a day, from 1 lb. to 1½ lbs., according to the size of the animal. Potatoes, or odd pieces of bread, soaked in the liquor that the meat has been previously boiled in, may be given for breakfast. The dog must have a constant supply of good water; he ought not to be fed more than twice a day.

WALTHAMSTOW.

**Ladies' Department.****WHAT IS A PARAPETTICOAT?**

We are astonished at the numerous inquiries that have reached us about this article. Its name reveals its nature. It is a hybrid between a parasol and a petticoat. This is not banter, but fact. And why should there not be such a thing? What is there in *rerum natura* to prevent an ingenious person from applying those two needful articles of shelter and dress to gardening purposes? They will fade, and wear thin, in the custody of the most economical gentlewoman, and to find a use for them afterwards is an adaptation of means to end which cannot be too highly commended.

Let us give a receipt for making a parapetticoat. First find a good-sized parasol, or small umbrella, covered with cotton, and not rubbed into holes. Then select a cast-off petticoat, not a crinoline, which Mrs. Malaprop calls a Kremlin, nor yet a flannel, but some other form of the vestment; it need not be very full; indeed, it will be the better for being scanty; sow up the opening, and it is ready for attachment to the parasol. For this purpose the latter instrument must be opened, and kept so; then the upper end of the petticoat is to be sowed to the edge of the parasol, and a staff six feet or more long is to be secured to its handle. Thus the parapetticoat is constructed.

But what a word! cries Sir Erasmus Verbal. What a barbarous compound of Greek and Saxon! The thing may be well enough, but its name is unendurable. Pray call it a parachiton, or a parachitonisk. We can have no objection to the change, if the world prefers it; and we agree with Sir Erasmus, that it will be as well to adopt it when parasol is called parahelion, and parapluie a parombrion—but not till then.

And what is the parapetticoat for? For, Madam! for a most important purpose. It is an instrument of execution; it is the shirt of Nessus; it is the robe of Atropos. It is to enable the gardener to dispatch his mortal enemies. It is to relieve his rose bushes from that foe which he assails in vain with snuff, gas water, and smelling salts. It is to kill green flies.

The instrument is used thus. In the first place, the petticoat is drawn up till it rests upon the outside of the parasol. The staff of the latter is then introduced perpendicularly into the centre of a rose bush, and secured in its place by being pushed into the ground. The petticoat being then drawn down, the bush is completely covered by the garment. The gardener then blows his tobacco smoke beneath it; in a few minutes the rose bush is enveloped in a cloud which has no outlet; the green-fly seeks in vain to escape from the fatal atmosphere which enters every fold and lurking-place; he clings in vain to his beloved rose-buds; his grasp relaxes; he falls; he dies, and with him

Unaumber'd corses strew the fatal plain.

Five minutes suffice for the execution. The veil may then be raised; the instrument removed, and the operation repeated upon a new horde of delinquents.—*Gardener's Chronicle.*

**Boys' Department.****A CHAPTER ON GRASSES.—No. 2.**

THE following definition of a *true grass* is copied from a lecture delivered before the class of the Chester County Cabinet of Natural Sciences, by Dr. Darlington, of West Chester, Pennsylvania, an excellent botanist and practical farmer; brief and simple as it is, it will be found to contain the most striking characteristics of the tribe:—“ Whenever we meet with a plant having a cylindrical, jointed stem; with the joints solid, and the intervening portions hollow—or, in a few instances, filled with a pith-like substance—the leaves alternate, one originating at each joint, embracing the stem with its base, and forming a sheath, which is slit on one side, down to its origin—and the flowers protected by those peculiar envelopes known by the name of chaff, we may take it for granted we have before us a *genuine grass*.” To the same lecture I am indebted for many of the facts here stated, but as I quote from memory, I dare not make another answerable for my inadvertencies.

Botanists enumerate upwards of three hundred species of grasses indigenous to the United States—yet all the cultivated kinds, and their almost innumerable varieties, are believed to be introduced.

The uses of this interesting tribe are almost too well known and too various, to require enumeration—some few I will point out, and the boys may do the rest. Those considered of most value to the agriculturist in the Middle and Western States, as affording the best hay and pasture—though if I do not place them in their proper order of excellence, the same young observers must set me right—are, “ *Meadow grass*” (*Poa pratensis*); “ *blue grass*” (*Poa compressa*); “ *Timothy*” (*Phleum pratense*); “ *red top*” (*Agrostis vulgaris*); “ *fescue grass*” (*Festuca pratensis*); “ *orchard grass*” (*Dactylis glomerata*); “ *ray grass*” (*Lolium perenne*); and “ *sweet-scented vernal grass*,” (*Anthoxanthum odoratum*), which gives a delightful perfume to the hay. Some others are occasionally cultivated; but, I believe, not to any great extent or advantage.

The sugar-cane (*Saccharum officinarum*) is a *true grass*, which, in its structure and habit, bears a striking resemblance to Indian corn; but unlike it, the chief value consists in the rich juice with which the stems abound—and if any boy should be so ignorant as not to know that it furnishes sugar and molasses, he should be made to learn the lesson before he is again allowed anything better than *sour apple pie*, or *dry bread* for his luncheon.

A species of seed, which in Brazil forms impenetrable thickets, grows to the height of thirty or forty feet, with hollow stems six inches in diameter, which are filled with a cool, pure liquid, capable of quenching the most burning thirst. Of this the hunters are so well aware, that, when in need of refreshment, they, with their machitis, or large two-edged chopping knife, cut off the young shoots just below a joint, and drink the delicious beverage so bountifully supplied by nature.

A very coarse paper is manufactured in this country, from oat straw, which is found to resist the effects of damp better than other kinds of cheap

paper. In the native country of the "Bamboo," *Bambusa arundinacea*, the stately culms, or stems, furnish spars for sail boats, as well as stout walking-canapes, much valued by pedestrians; and of some of its congeners are made the pretty "rattans" and "supple jacks—and fishing rods," such as good old Izaak Walton never dreamed of.

Excellent mattrasses are made from the soft inner husks of Indian corn, properly dried and hatched. Nothing affords a warmer thatch for outhouses than rye straw; and in Great Britain the cottages of the laboring classes are universally roofed with it; and what could our neat housewives do without the aid of the fine branching panicles of the *broom corn?* (*Sorghum saccharatum*.)

The creeping suckers and tangled roots of several species of otherwise useless grass, are extensively useful both in Europe and America, in fixing the shifting sands of large tracts of sea coast, and preventing the ravages of the winds and tides—for this purpose the *Arundo arenaria* and *Cynodon dactylon* are most valuable. But I should weary my young friends, as well as myself, were I to save them the pleasant labor of finding out all the ways in which grass contributes to our comfort and luxury—mats, bags, ropes, ladies' bonnets, boys' hats, and a hundred other useful and ornamental articles. Even the melancholy sounding whistle, which every schoolboy can make of a green rye straw—not knowing or dreaming perhaps, that he is doing what men did thousands of years ago,—when they first invented the musical instrument, since called "Pan's pipes," which after various modifications became the soul-entrancing flute!

I dare not mention among the *useful* productions the much abused whiskey distilled from rye, nor the rum and ratafia from the sugar-cane.

Straw, kept dry, appears almost incorruptible, which is owing to the abundance of silex which pervades the *cuticle* or skin, for they have no *bark*—that it is so filled can easily be proved by burning a straw upon a piece of glass, when the vegetable portion will be consumed, and the complete skeleton left in the silex.

It would be an agreeable and useful employment for the boys, to collect and preserve a specimen of each kind of *true grass*, and arrange them according to their natural affinities, in books made of straw paper, loosely stitched together. Each specimen should have a label of writing paper, with the scientific and common names, neatly written, the place and mode of growth, cultivated, naturalized or indigenous, time of flowering and of ripening the seeds, with the several uses it can be made to answer in rural economy, to man or to animals.

*Eutawah.*

E. L.

#### BOYS, BE KIND TO DOMESTIC ANIMALS.

ONE of the patriots and heroes of the War of Independence, who died suddenly, some years ago, in his barn-yard, said, with his last breath, to his servant, near by, "Take care of these creatures." By the same kind direction we are bound to study the means of preserving the health and administering to the wants of domestic animals, by all those precepts in "Holy Writ," which recommend kind-

ness to them, and protection from outrage and oppression. A portion of the humane spirit of those precepts has pervaded all countries, and descended in a particular manner to the nations of the East. One of the tales of a philosopher of India, elucidates this fact in a striking manner. A traveller who was permitted to visit the place of punishment of criminals, saw there every part of the body of a man of high rank in flames, except one of his feet. Upon asking the reason why that part of his body, alone, was exempt from the rage of the fire, he was told, that the only kind action that man had performed during his whole life, was to liberate a lamb which had been entangled, by one of its feet, by means of a brier, in crossing a field, and that, as a reward for that act, his foot was exempted from punishment.

We are also bound to study the diseases of domestic animals, and the remedies that are proper to cure them, by a principle of gratitude. They live only for our benefit. They require in exchange for their labor and all the other advantages we derive from them, nothing from us but food, shelter, and these often of the cheapest and coarsest kind, so that there is constantly due to them an immense balance of debt from us. This motive to take care of their health and lives will appear more striking when we consider the specific benefits we receive from each of them. The horse is not only an important appendage, but a necessary part of the cement of civilized society. He plows our fields, he draws home our harvests and fruits to our barns and cellars. He conveys them from distant parts of the country, oftentimes over rough and difficult roads, to our sea-ports and market towns. He receives, in exchange for them, the products of foreign climes, and transports them to the interior and remote parts of our country. He administers to our health and to our pleasures under the saddle, and in the harness. In short, he adds to the increase of our commerce, national wealth, and happiness. To the horned cattle and sheep, we are indebted for many of the blessings and comforts of life. The strength and patience of the ox in the plow and in the team, have added to the wealth of the farmer in every age and country. The cow has still greater demands upon our gratitude. Her milk, in its simple state, furnishes subsistence to a great part of mankind. Its products in cream, butter, and cheese, form the most agreeable parts of the aliment, and even the luxuries of our tables. Her flesh affords us food. Her skin protects our feet and legs from the inclemencies of the weather in the form of boots and shoes. The sheep affords us, by her wool, a great portion of our clothing during every year of our lives, and likewise furnishes us with a wholesome aliment in the form of mutton and lamb. The hog is said, like the miser, to do good only when he dies. But this is so far from being true, that he is dishonored by the comparison. He fattens upon the offals of our kitchens, and is also made to perform the office of scavenger in cleaning our streets. At his death he bequeaths us his flesh for food, his hair for brushes, and his fat for culinary purposes, and is useful in the arts. Other benefits are derived from the ass, the goat, the cat, the dog, and other animals.

\*W.\*

## FOREIGN AGRICULTURAL NEWS.

By the arrival of the steamer Caledonia, we are in receipt of our foreign journals up to August 4th.

**MARKETS.**—*Ashes*, a very limited inquiry. *Cotton* an active demand without any change of prices. Stock on hand in Liverpool on the 1st of August, 800,000 bales against 1,058,000 same period last year. *Flour and Meal* dull, but in consequence of the loss in the potato crop, it is thought the latter article will advance. *Beef* large sales. *Pork* dull. *Lard* improving. *Cheese* of a superior quality much asked for. *Naval Stores* in request. *Rice* a slight advance. *Tallow* improving. *Tobacco* steady. *Wool* firm with a fair demand. A small quantity had been received from Oregon. It was in fine order, and sold well. The stock on hand of all kinds is light.

*Money* quite easy at  $3\frac{1}{2}$  to 4 per cent.

*The Weather* had been somewhat unfavorable to the in-coming crops, and considerable injury had been experienced; not enough, however, to affect prices. The harvest in France has been injured about the same as in Great Britain.

*The Apple Crop* is greatly injured throughout Europe. This will make American apples in greater demand than ever.

*The Potato Disease* is ravaging Ireland again, and is more or less prevalent throughout Europe.

*Seed Wheat.*—Whatever difference of opinion may exist as regards the wisdom of the recent alterations in the laws respecting grain, there can be none as to the necessity of adapting ourselves to our present circumstances, and endeavoring to make the best of them. It is a known fact that in high latitudes the growth of plants is very rapid. The burst of spring, the splendor of summer, and the maturity and incipient decay of autumn follow each other with a swiftness scarcely credible. The grain sown to-day, is, in a very few weeks, ready for the sickle; and the higher the latitude where it can be made to grow, the shorter is the period it requires for its growth and ripening. Grain which has been grown in the extreme north, when used as seed in a southern country, gives its first produce more speedily, ripening in a much shorter time, although at a second sowing it loses this quality. The fact has been recognized, and is acted upon pretty extensively in this country, it being commonly recommended to obtain seed from colder situations than those in which it is intended to be sown. In Sweden, grain is annually brought for seed from Torneo (in the north of the gulf of Bothnia, and almost within the arctic circle), and sown in lands so much exposed that the sowing time is thrown so late that corn, excepting from seed thus obtained, has no time to ripen. Districts formerly on this account utterly barren, are thus rendered fruitful. Is it not then worthy of the consideration of some of our enterprising agriculturists, especially of those who occupy high cold districts, whether they might not profitably import their seed corn from the northern European nations, and thus, perhaps, obtain a harvest in September, where now it is commonly thrown into October or November? With this resource it might be found that wheat could be grown more extensively and more profitably than it is to the west of Sir Robert Peel's line drawn from Southampton to Inverness.—*Gard. Chrcn.*

*To Pull Flax.*—The time when flax should be pulled is a point of much nicety to determine. The fibre is in the best state, before the seed is quite ripe. If pulled too soon, although the fibre is fine, the great waste in scutching and hackling renders it unprofitable; and, if pulled too late, the additional yield does not compensate for the coarseness of the fibre. It may be stated that the best time for pulling is, when

the seeds are beginning to change from a green to a pale brown color, and the stock to become yellow, for about two-thirds of its height from the ground. When any of the crop is lying, and suffering from wet, it should be pulled as soon as possible, and kept by itself. So long as the ground is undrained, and imperfectly levelled before sowing, the flax will be found of different lengths. In such case, pull each length separately, and steep in separate pools or keep it separate in the same pool. If the ground has been thoroughly-drained, and laid out evenly, the flax will be all of the same length. It is most essential to take time and care to keep the flax even, like a brush, at the root ends. This increases the value to the spinner, and of course to the grower, who will be amply repaid, by an additional price for his extra trouble. Let the handfuls of pulled flax be laid across each other diagonally, to be ready for the rippling.—*Ibid.*

*To make Rhubarb Wine.*—To every pound of green rhubarb stalks, when bruised, put a quart of cold spring water; let it stand three days, stirring it twice in a day, then press, and strain it through a sieve, and to every gallon of the liquor, put  $2\frac{1}{2}$  or 3 lbs. of good loaf sugar; barrel it, and to every 5 gallons add a bottle of white brandy; hang a piece of isinglass in the vessel, suspended by a string, and stop it up close; in six months if the sweetness be sufficiently off, bottle it for use, otherwise let it stand in the cask a longer time.—*Ib.*

*Preserving Rhubarb.*—In addition to "preserving it with sugar like raspberries," rhubarb can be very successfully and agreeably preserved—in bottles as green gooseberries are—peel the stalks and cut them into pieces as for a tart, and then treat them as if they were gooseberries. Rhubarb bottled thus gives us excellent tarts and pies at Christmas. It can also be dried as angelica, and makes a very agreeable dried preserve. Have any of your correspondents ever tried dried strawberries? They are very good, and the abundant crop of this year will give material to experiment on.—*Ib.*

*Bones dissolved in Caustic Ley.*—I have seen much in your paper of bones being dissolved in sulphuric acid as a manure. Are you aware that bones may be dissolved in the alkaline ley of the soap-boiler, and will form a paste of the consistence of butter, which may be reduced to any thinness of fluid required for application as a liquid manure? Am I wrong in believing that, as the solvent power consists solely of soda-ash and lime, it would be a more powerful manure than the bones with acid? There was a patent some years ago for making soap in this manner; whether the patent is in force now I do not know, but that can easily be discovered if thought worth while.—*Ib.*

*Singular Fact in the Potato.*—We learn that here and there the new potatoes have been found, when dug up, to be sprouting from every eye. We have seen nothing of the sort ourselves; and we venture to ask our correspondents if they have remarked the circumstance. It will be a new phase in the potato constitution should this habit prove to be general. The expression of our informant is, "the potatoes before they are half grown are all growing again, throwing out roots and fibres from the eyes, and forming small tubers; a second generation in the year."

We would also make another inquiry. *The only universal fact*, relating to the potato disease of last year, was, that it did not appear at all, or in a very incon siderable degree, in genuine peat or "moss" land, which appeared to have some power of keeping off the decay. What we now are desirous of knowing is, Whether the experience of our readers tells them, that the same rule holds good this year? We should be greatly obliged by information on this point.—*Ibid.*

## Editor's Table.

**SALE OF DURHAM CATTLE.**—We desire to call the attention of our readers to the advertisement of Mr. Paoli Lathrop, offering his herd of Durham Cattle for sale. We have often inspected it, and can therefore say from our own observation that it is a very superior herd. Several of the cows are great milkers and butter makers, and we believe all are of prime quality.

**A HISTORY OF LONG ISLAND,** from its first settlement by Europeans, to the year 1845, with special reference to its Ecclesiastical concerns. By Nathaniel S. Prime. Pp. 420, with a map. Published by Robert Carter, 58 Canal St., N. Y. Price \$1.00. Physically and historically, Long Island is one of the most interesting sections of the United States. In the above history, Doct. Prime has given a clear, and sufficiently minute account of its aspect and resources, and the events of most importance since its first settlement. To gather the materials for this has required much laborious research and personal observation. The ecclesiastical part of this work is particularly valuable, and can be found in no other history of the Island.

**SACRED PHILOSOPHY OF THE SEASONS;** illustrating the Perfections of God, in the Phenomena of the year. By Rev. Henry Duncan. New York: Robert Carter, 58 Canal St. This excellent work, like the "Bridgewater Treatises," is intended to demonstrate the existence and the attributes of God, in the various phenomena of nature in the revolving year. The first three volumes treat respectively on Winter, Spring, and Summer, and are replete with useful and instructive matter which cannot fail to be interesting to teachers of schools, academies, and families. Price \$1.25 per volume.

**EXPEDITION TO BORNEO** of H. M. S. Dido for the Suppression of Piracy; with extracts from the Journal of James Brooke, Esq. By Captain the Hon. Henry Keppel, R. N. Pp. 413, with a Map. Price 50 cents. Harper & Brothers. The magnificent island of Borneo, and the adjacent archipelago are almost unknown regions in this country; it is with peculiar satisfaction, therefore, that we are favored with a copy of the narration of this Expedition. It contains the latest and most accurate geographical, historical, and political information to be found of Borneo; and aside from this, it is full of stirring adventure and wild narrative.

**RESULTS OF HYDROPATHY;** or Constipation not a disease of the Bowels; Indigestion not a disease of the Stomach; with an Exposition of the true nature and cause of these Ailments, examining the reason why they are so certainly cured by the hydropathic treatment. By Edward Johnson, M. D., pp. 181. Price 50cts. Wiley & Putnam. We are not Doctor enough to pronounce *ex cathedra* (authoritatively) on the subject of hydrotherapy. But this we know, that ablution in cold and warm water, and in the vapor bath, are highly beneficial; and if practised much more than at present would be greatly conducive to the health of the people. Frequent ablution is a sacred duty with many of the Eastern nations; we wish a good spunging and friction with towels were the daily duty of this great nation of ours in the West. This, with a plain wholesome diet, and abstinence from spirituous and fermented liquors, would, in a future generation, drive nine-tenths of the diseases out of the country.

**LIFE IN PRAIRIE LAND.** By Eliza W. Farnham. Pp. 408. Price 50 cents. Harper & Brothers. These sketches are truly national and graphic, and told in an alternate style of the gay and grave, the comic and the pathetic. They are very like "A New Home," by Mrs.

Clavers, though far from imitation. In truth they are as original as the scenery and people they describe. In after generations they will be studied as a true index of the character of our own in the wild region where the scenes are laid. We have the pleasure of the acquaintance of the fair authoress, and can tell our readers that she is a clever woman both in the English and Yankee acceptation of the term.

**NUMBER OF COTTON SPINDLES.**—According to the latest accounts, the estimate of the spindles now at work in the principal cotton manufacturing countries is

	Spindles
In Great Britain and Ireland, - - - - -	17,500,000
In the States comprised in the Custom League, - - - - -	815,000
In Austria and Italy, - - - - -	1,500,000
In France, - - - - -	3,500,000
In Belgium, - - - - -	420,000
In Switzerland, - - - - -	650,000
In Russia, - - - - -	700,000
In the United States of America, - - - - -	2,500,000
Total, - - - - -	27,585,000

**PICTORIAL HISTORY OF ENGLAND, INCLUDING THAT OF SCOTLAND AND IRELAND.** Being a history of the People as well as a History of the Kingdom, down to the reign of George III.; profusely illustrated with many hundred engravings on wood of monumental records; coins; civil and military costume; domestic buildings, furniture and ornaments; cathedrals, and other great works of architecture; sports and other illustrations of manners; mechanical inventions; portraits of eminent persons; and remarkable historical scenes. To be completed in about 40 Numbers, forming four elegant volumes imperial octavo. Price 25 cents per number. Harper & Brothers. This history forms one of the series of valuable works issued by the Society for the Diffusion of Useful Knowledge, and is undoubtedly the very best for the general reader that has yet been written on Great Britain and Ireland. The embellishments are really beautiful, and so numerous as to form a history almost of themselves alone; making it the most attractive work for young people we know of—aye, and for the middle aged and the old too. No one can be well acquainted with England who has not read its Pictorial History. The Messrs. Harper are doing the American public a great service by its republication.

**STABLE TALK AND TABLE TALK; or Spectacles for Young Sportsmen.** By Harry Hieover. Pp. 357. Price \$1.00. Lea & Blanchard. The writings of this author have attracted a good deal of attention in England; and his observations on the management of horses, the stable, &c., are highly esteemed. He inculcates gentleness and kindness in their treatment, and shows the impolicy of the reverse method even if one has no other motive than his own immediate interest to actuate him. In addition to this, the work is replete with anecdotes and amusing scenes told in an off-hand and comic vein.

**FRENCH DOMESTIC COOKERY,** combining elegance with economy; describing new Culinary Implements and Processes; the management of the Table; instructions for Carving; French, German, Polish, Spanish, and Italian Cookery, 1200 recipes. Pp. 340, with numerous engravings. Price 50 cents. Harper & Brothers. Now if our readers wish to become *au fait* in the sublime art of Cookery, let them purchase this book and set themselves down incontinently to the perusal thereof. The French are acknowledged to be the best cooks in the world, and this, from our own experience, we can attest as a fact, having resided some time among them, and partaken very frequently, with an indescribable gusto, of their exquisite cuisine.

**THE TREES OF AMERICA;** Native and Foreign, pictorially and botanically delineated, and scientifically and popularly described; being considered principally with reference to their Geography and History; Soil and Situation; Propagation and Culture; Accidents and Diseases; Properties and Uses; Economy in the Arts; Introduction into Commerce; and their Application in useful and ornamental Plantations. Illustrated by numerous Engravings. By D. J. Browne, Author of the *Sylva Americana*. Large 8vo. pp. 532. New York: Harper & Brothers, 82 Cliff St. This work, long announced as in preparation, has at length been laid upon our table, and we hasten to give our readers some idea of its contents, and of the manner in which it has been executed. We need not, however, enlarge much upon the latter point, as the public have had ample opportunity to form a correct opinion of the capabilities of the author from numerous contributions from his pen which have appeared in the *Agriculturist*. Many years have been employed in studying, travelling and collecting materials for this publication; and though of course it does not come under the category of an entirely original work, yet it has entailed an equal amount of labor, in consulting the most approved authorities, and of judgment and observation in verifying or correcting their statements.

The title of the work, which we have quoted at length, sufficiently indicates its nature, and the mass of detail which it comprises. The trees are arranged according to the Natural System, which has been adhered to by De Candolle, Loudon and others. But our readers must not imagine, from our beginning to talk of Systems, that the work is intended for the scientific alone. It is addressed to a much more numerous class—even to the public at large. Let us take one tree and see how it is treated, and that will serve as a sample for the whole. Our favorite fruit being in season, we irresistibly turn to the Peach-tree. First we find the Botanical name, with a Table of Synonyms, and a few lines of technical characteristics, in small type. Then comes a general description of the tree, and its varieties, short but to the purpose; then the geography, history, soil, &c. &c., with uncommonly minute directions as to its management and propagation, and an account of the diseases to which it is subject and the insects which infest it, ending with its properties and uses. All this is conveyed in a pleasing style, totally devoid of affectation, and not obscured by scientific terms, as is proper for a work intended for the public at large. It is exceedingly gratifying to observe the happy manner in which amusement is blended with instruction throughout the volume; side by side with veritable history comes the classic legend, or the popular superstition, or the tribute of the poet, filling the page with variety and the mind with romantic associations. This characteristic is so pervading that many might read it with interest who hardly know an oak from an apple tree, and who have no more idea of cultivating the latter than they have of eating the fruit of the former. But it is to the farmer in particular that we would strongly urge the importance of such a work as the present. He should not be so entirely engrossed by his root and grain crops, as wholly to neglect the cultivation of trees. We fear this is too frequently the case, with the exception perhaps of a few fruit-bearers.

The Engravings are numerous, and are executed with considerable skill, "and have either been made directly from drawings after nature, or from accurate delineations already in existence, one figure representing the general appearance of each tree, and another of the leaf, flower, fruit, &c." The publishers have acquitted themselves handsomely in getting up the work—the paper, type, &c., being all that can be desired. No expense has been spared to render it worthy of the

subject of which it treats; and we trust that the author will meet with such substantial encouragement, as will induce him to carry out the intentions which he expresses in his Preface.

We heartily commend this handsome volume to our friends both here and in the country; we commend it to the inhabitants of New York and Brooklyn, who, we are glad to perceive, indulge themselves, as much as limited space will allow, in the cultivation of trees; we commend it to State and County Societies as contributing a valuable premium to be contended for by agriculturists; and, finally, we hope that those who control our Colleges, Academies and Common Schools, will take care that the youth under their charge have every opportunity of gaining a thorough knowledge of the Trees of America.

**TEMPER AND TEMPERAMENT; or Varieties of Character.** By Mrs. Ellis. Pp. 267. Price 50 cents. Harper & Brothers. This is a clever book by a clever woman, conveying a happy moral in a pleasing style: We especially commend it to the married, and those about to marry. However amiable their tempers and temperament may be, we promise them that the perusal of this little work will make them still more kind and obliging to each other and to all around them.

**TOWN'S SPELLING AND DEFINING Book;** containing Rules for designating the Accented Syllable in most words in the language, being an Introduction to Town's Analysis. One hundredth edition. Critically revised and corrected. Cincinnati: Derby, Bradley & Co., 113 Main St. 1845. The author of this little work remarks in his preface that "All the spelling books now in use follow out the same uniform plan, of arranging words according to their sounds and syllables, irrespective of their import. On that plan, they are generally well executed, and would admit of little improvement. But if the above principle be well founded, something is still requisite, beyond a mere judicious arrangement and correct orthography, to answer the grand purposes of elementary instruction. It is plain that, as far as practicable, the knowledge of the *sign*, and of the *thing signified*, should be acquired together, inasmuch as *both* are to hold an inseparable connection in the mind."

**LONG ISLAND HORTICULTURAL SOCIETY SHOW.—** This will take place at Flushing on the 17th, 18th and 19th of September. Great preparations are on foot to make a superb display of it, and we have no doubt it will be worthy the attention of the public. Steam-boats and Stages will leave New York frequently during each day of the Show, making it easy to visit Flushing at convenient hours.

**THE BIBLE, THE KORAN, AND THE TALMUD; or Biblical Legends of the Mussulmans.** Compiled from Arabic Sources, and Compared with Jewish Traditions. By Dr. G. Weil. Pp. 264. Price 50 cents. Harper & Brothers. Here is an epitome of Mohammedan theology and morals, set forth in a racy, fascinating style peculiar to Eastern literature.

**THE CULTIVATION OF AMERICAN GRAPE VINE, AND MAKING OF WINE.** By Alden Spooner. Pp. 96. Price 38 cents. Published by A. Spooner & Co., 57 Fulton St., Brooklyn. Being a veteran horticulturist, the author has given a valuable little work to the cultivator of this vine. In it he has also embraced an account of the Isabella Grape, in the successful culture of which Brooklyn has become quite celebrated.

**RENNSELAER COUNTY AGRICULTURAL Show.—** This Show will come off in Troy, the week after that of the State Show at Auburn. Great preparations are on foot to make a superior thing of it. Mr. Vail intends to make a large display of his beautiful Short-Horn Cattle; others also are coming forward with a goodly number of different things.

## REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, AUGUST 22, 1846.			
ASHES, Pots,	per 100 lbs.	\$3 50	to \$3 56
Pearls,	do.	4 06	" 4 12
BALE ROPE,	lb.	5	" 7
BARK, Quercitron,	ton,	22 00	" 24 50
BEANS, White,	bush.	1 12	" 1 25
BEESWAX, Am. Yellow,	lb.	26	" 30
BOLT ROPE,	do.	12	" 13
BONES, ground,	bush.	40	" 55
BRISTLES, American,	lb.	25	" 65
BUTTER, Table,	do.	16	" 25
Shipping,	do.	9	" 13
CANDLES, Mould, Tallow,	do.	9	" 11
Sperm,	do.	25	" 38
Stearic,	do.	20	" 25
CHEESE,	do.	5	" 10
COAL, Anthracite,	2000 lbs.	5 00	" 6 00
CORDAGE, American,	lb.	11	" 12
COTTON,	do.	6	" 11
COTTON BAGGING, Amer. hemp,	yard,	13	" 14
Kentucky,	do.	11	" 12
FEATHERS,	lb.	25	" 34
FLAX, American,	do.	8	" 9
FLOWER, Northern and Western,	bbl.	3 62	" 4 25
Fancy,	do.	4 38	" 5 00
Southern,	do.	3 50	" 4 12
Richmond City Mills,	do.	5 50	" 5 75
Rye,	do.	2 50	" 2 75
GRAIN—Wheat, Western,	bush.	90	" 100
Southern,	do.	80	" 90
Rye,	do.	72	" 75
Corn, Northern,	do.	55	" 60
Southern,	do.	50	" 54
Barley,	do.	47	" 49
Oats, Northern,	do.	29	" 30
Southern,	do.	23	" 25
GUANO,	do.	2 00	" 3 00
HAY, in bales,	100 lbs.	45	" 55
HEMP, Russia, clean,	ton.	215 00	" 225 00
American, water-rotted,	do.	105 00	" 185 00
American, dew-rotted,	do.	75 00	" 125 00
HIDES, Dry Southern,	do.	7	" 8 1/2
HOPS,	lb.	12	" 18
HORNS,	100.	1 00	" 7 00
LEAD, pig,	do.	3 56	" 3 75
MEAL, Corn,	bbl.	2 56	" 3 00
Corn,	hhds.	14 75	" 15 50
MOLASSES, New Orleans,	gal.	28	" 31
MUSTARD, American,	lb.	16	" 31
NAVAL STORES—Tar,	bbl.	1 75	" 2 00
Pitch,	do.	1 00	" 1 06
Rosin,	do.	55	" 65
Turpentine,	do.	2 50	" 2 50
Spirits Turpentine, Southern,	gal.	30	" 35
OIL, Linseed, American,	do.	55	" 57
Castor,	do.	60	" 73
Lard,	do.	58	" 60
OIL CAKE,	100 lbs.	1 25	" 1 50
PEAS, Field,	bush.	1 25	" 1 59
PLASTER OF PARIS,	ton.	2 38	" 3 00
Ground, in blks.,	of 300 lbs.	1 12	" 1 25
PROVISIONS—Beef, Mess,	bbl.	6 25	" 9 00
Prime,	do.	4 25	" 5 50
Smoked,	lb.	6	" 9
Rounds, in pickle,	do.	4	" 6
Pork, Mess,	bbl.	9 50	" 12 00
Prime,	do.	7 88	" 9 00
Lard,	lb.	5 1/2	" 7
Bacon sides, Smoked,	do.	3	" 4
In pickle,	do.	3	" 4
Bams, Smoked,	do.	6	" 10
Pickled,	do.	4	" 7
Shoulders, Smoked,	do.	5	" 6
Pickled,	do.	4 1/2	" 5
RICE,	100 lbs.	3 00	" 4 00
SALT,	sack,	1 40	" 1 50
Common,	bush.	20	" 35
SEEDS—Clover,	lb.	6	" 9
Timothy,	7 bush.	10 00	" 16 00
Flax, clean,	do.	10 00	" 11 00
rough,	do.	8 50	" 9 00
SODA, Ash, contg' 80 per cent. soda,	lb.	3	" 3
Sulphate Soda, ground,	do.	1	" —
SUGAR, New Orleans,	do.	5	" 7 1/2
BUMAC, American,	ton,	35 00	" 37 50
TALLOW,	lb.	6 1/2	" 7 1/2
TOBACCO,	do.	2	" 2 1/2
WHISKEY, American,	gal.	19	" 21
WOOLS, Saxony,	lb.	35	" 60
Merino,	do.	25	" 30
Half blood,	do.	20	" 25
Common do.	do.	18	" 20

REMARKS.—*Ashes* little inquiry. *Cotton* active, with sales at an advance of one-eighth. *Flour* steady. *Grain*, except in rye, the sales are dull. *Molasses* in fair request. *Naval Stores* the same. *Beef* and *Pork* firm, with an increased demand. *Rice* active. *Seeds* dull. *Sugar* a slight advance. *Tobacco* in moderate request. *Wool* considerable sales.

*Money* continues fairly abundant at 7 per cent.

*Stocks* are steady, with few fluctuations.

The Weather has been very hot most of the past month, but has now changed to cool and showery. Hay has been a very large crop, though owing to the heavy rains, not as well secured as usual. The small grains have turned out well, except in Western New York, and a few other districts, where the wheat is much rusted and shrunk. Corn is a great crop. Potatoes are badly rotting in most parts of the country. Cotton is backward, and at best a moderate crop only can be gathered. Rice has come in well. Sugar and Tobacco generally are looking well. Upon the whole, we can congratulate the farmers and planters upon more than an average production of the crops thus far, this season.

TO CORRESPONDENTS.—Communications have been received from Alexander McDonald, John Lewis, Wm. Murdock, L. T. Talbot, J. C. \*\*\*\*, An Amateur Gardener, and A Summer Resident of East Jersey.

The Editor of the Maine Cultivator is informed that we know of no pure *Cheviot Sheep* short of Wisconsin, and that these are held at a high figure. Improved *Cheviots* always command high prices in Scotland, say from 5 to 20 guineas each.

In answer to J. B. of Annapolis, concerning "Destroying the Wheat Fly," quoted from the Quebec Gazette, in our last No., he is right in supposing that orpiment is the *auri-pigmentum* of old chemists, or the sulphuret of arsenic, of the moderns. We presume it is meant that the burning of this article should be on the windward side of a field of wheat, at a yard or two distant, in order to drive the insects away.

## PLEASE TO TAKE NOTICE,

That Mr. C. W. Hubbell is no longer authorized to take subscriptions for the American Agriculturist, and that the authority given by the publishers, Saxon & Miles, is hereby revoked. All persons are forbid paying the said Hubbell any monies for this paper hereafter.

New York, August 24th, 1846.

ACKNOWLEDGMENTS.—List of Premiums of the 19th Annual Fair of the American Institute, to be opened on the 9th of October, at New York, has been received—also of the Fair to be opened at Hartford, Ct., on the 23d of this month—and of the Hamilton County Agricultural Society, to be held at Carthage, N. Y., on the 24th to 26th instant—likewise a Prospectus from Lindley Murray Ferris, President of the Orange County, N. Y., Scientific and Practical Agricultural Institute.

MERINO BUCKS.—We understand that Mr. A. L. Bingham, of Cornwall, Vermont, will exhibit 30 to 40 head of Merino Bucks, at the N. Y. State Ag. Show at Auburn, this month, most of which will be for sale.

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Catalogues can be obtained *gratis*, of the Proprietors by mail, of Parsons & Lawrence, No. 10 Pine Street, or of A. B. Allen, 187 Water Street, New York.

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PAOLI LATHROP.

South Hadley Falls, Mass., Aug., 1846. 2t

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A Farm of 325 acres, in Fishkill, Dutchess County. It is one of the choicest sections in the County. The Farm is partly of high limestone land, and with some rich alluvial meadows lying along the Matteawan Creek. The buildings are new and extensive—the fences all good—and the soil in fine condition. Increased production can be obtained from inexhaustible supplies of muck and limestone on the farm. It lies 5 miles from the Hudson River; which with the villages, mills, and factories around, afford near and abundant market.

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For further particulars address (post-paid) William Van Wyck, Poughkeepsie, Dutchess County, New York.

September, 1846. 2t

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Also *Hovey's Boston Pine*, \$2 per dozen—*Buist's* (of Philadelphia) Prize, \$2 per dozen—*Princess Alice Mauds*, \$1 per dozen, very early and fine—*Princess Royal*, \$2 per dozen—*British Queen*, \$3 per 100—*Myatt's Eliza*, \$3 per 100—this last is a superior variety, good bearer, and of exquisite pine flavor—extra fine—*Prince Albert* (*true*), \$1.50 per dozen—*Victoria*, \$2 per 100, one of the very best in cultivation—Iowa, \$1 per dozen, fine new sort—*Swainstone*, \$1 per dozen, with several other sorts, but those named above are among the best. All the above are in pots, strongly rooted, and making runners, a much better mode than hastily taking up and planting out, as the plants having little stability in themselves, are killed by a single day's exposure to the sun; this is why so many fail to grow.

Also *Scotch Pine Apple* or *Crimson Cone*, an unrivaled sort, possessing every good quality, \$2 per 100—carefully transplanted from the bed, and well packed. J. M. THORBURN & CO., 15 John Street.

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White Flint, Red, and other superior kinds of Winter Wheat for sale; also Spring Wheat of various kinds. Rye of an excellent quality, for fall sowing. Imperial Oats, the heaviest and best kind raised in the United States, or that can be imported.

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No. 10	1
"	1 1/2
"	12
Corn.	
No. 2, M. & Co.	
" 3, M. & Co.	
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" 1 1/2 Dutcher's.	
" 2 Ditto.	

Nos. 18, 19, 20, 21, Miner & Horton's.

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Flushing, Long Island, September 1st, 1846.

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